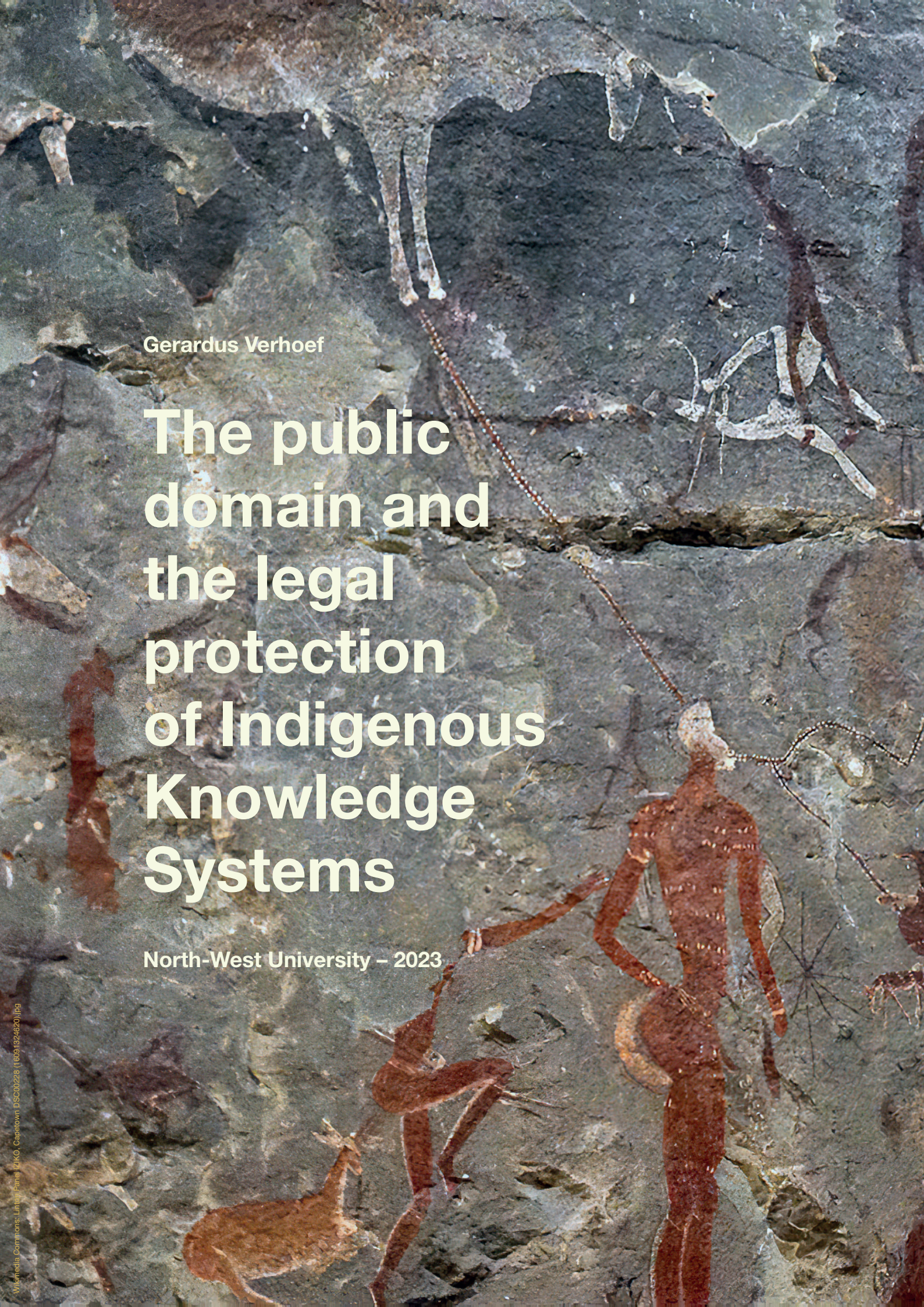




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The public domain and the legal protection of Indigenous Knowledge Systems

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The public domain and the legal protection of Indigenous Knowledge Systems

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Daar word gesê dat Afrika vir eeue reeds, en tans die geleentheid mis om deel te wees van die geskiedenis. Miskien dra my poging daartoe by dat Afrika die publieke domain betree, wys wat ons het, deel wat ons het, en groei met wat ons het.

QUOTES

On fairness:

Fairness is achieved when people restrain their liberty in ways necessary to yield advantages for all.¹

On traditional knowledge:

The tongue does not rot.²

On the public domain:

Who needs a public domain if you can create out of nothing?³

No man writes exclusively from his own thoughts, unaided and uninstructed by the thoughts of others.⁴

¹ Hart 1955 *The Philosophical Review* 175.
² Boateng 2013 *Law & Society Review* 964.
³ Boyle 2003 *Law & Contemp Probs* 52.
⁴ Litman 1990 *Emory L J* 147.

KEY TERMS

Benefit sharing; discovery; indigenous knowledge systems; intellectual property; invention; genetic resources; indigenous peoples and local communities; public domain; traditional cultural expressions (folklore); traditional knowledge

ABSTRACT

IKS stakeholders often debate the divide between indigenous and other knowledge systems. IP rightsholders seek advice on how they can strengthen and secure their proprietary rights or broaden the public domain, while other interest groups such as indigenous peoples and local communities want to know how the public domain can be enclosed. One reason for this divide seems to be that the IP regime operates in a sphere where the public domain is demarcated by individual rights, as opposed to the indigenous knowledge systems regime where the public domain is demarcated by social embeddedness and connected to the land on which indigenous peoples and local communities live. This problem manifested itself over centuries of colonialism and technological development worldwide, but also because indigenous worldviews do not share the pre-appropriation narrative of the public domain than technological advanced societies.

Within the context of this narrative the research question was posed, namely "what are the appropriate legal instruments for protecting Indigenous Knowledge Systems without compromising the public domain?"

To answer this question, the public domain was analysed from three perspectives, namely international law instruments, human rights and IP rights. It was found that none of these perspectives lead to a narrow interpretation of the public domain – in fact, they all aim to broaden the public domain.

These early findings on the public domain assisted to apply the fundamentals of the public domain to international law instruments and their application to IKS. In this regard it has been shown that the existing international law instruments, as well as the natural evolvement of these instruments over time, adequately provides for the protection and commercial exploitation of IKS worldwide. There is a proviso, though: IKS need to be viewed through the WIPO lens, which provides for the distinct delineation of categories of IKS, namely traditional knowledge, traditional cultural expressions and genetic resources. For example, the *Bern Convention* is founded on the three principles of *droits des auteurs*, *droit moral*, and *domaine public*. The

boundaries of the public domain within the context of IKS can be reconciled with all three of these principles, and national legislators merely need to apply these principles to national legislation.

With these insights gained on international law instruments, a few countries were analysed to ascertain how they address their local challenges pertaining to IKS. The countries that were analysed all aimed to appreciate international law instruments to which they are signatories, while they develop country specific IKS-related jurisprudence, although it cannot be said to be the same in each country. None of the findings pertaining to these countries could provide convincing arguments as to why a *sui generis* system for IKS can work.

The research then moved to a legal analysis of South African legislation in relation to IKS. It has been shown that in general, South African legislation on IP is well aligned with international law instruments. These findings assisted with the research question at hand and was instrumental with coming to the early conclusion that IKS neatly fits into South Africa's current IP regimes and their associated public domains.

Throughout the thesis, the rights and obligations of IKS rightsholders were demarcated since no right is absolute, as has been shown when the South African *Constitution* was discussed. In this regard, the *droit moral* of individuals from indigenous peoples and local communities, as well as the indigenous peoples and local communities, are to be respected. This approach led to more practical measures to ensure that matters such as prior informed consent, secrecy and sacredness, equity and access to TK, TCE and GR and benefit sharing were all understood within the boundaries of the public domain.

OPSOMMING

IKS-belanghebbendes debatteer dikwels oor die groot skeiding tussen inheemse en ander kennisstelsels. IE-regtehouers soek advies oor hoe hulle hul eiendomsregte kan versterk en hoe om die publieke domein te verbreed, terwyl ander belangegroepes soos inheemse mense en plaaslike gemeenskappe wil weet hoe die publieke domein omsluit kan word. Een rede vir hierdie meningsverskil blyk te wees dat die IE-regime funksioneer in 'n sfeer waar die publieke domein deur individuele regte afgebaken word, in teenstelling met die inheemse kennisstelsels-regime waar die publieke domein afgebaken word deur sosiale inbedding en verbind is met die grond waarop inheemse volke en plaaslike gemeenskappe leef. Hierdie situasie het oor eeue van kolonialisme en tegnologiese ontwikkeling wêreldwyd gemanifesteer, maar ook omdat inheemse wêreldbeskouings nie die toeëiening-narratief van die publieke domein deel as tegnologies gevorderde samelewings nie.

Binne die konteks van hierdie narratief is die navorsingsvraag gestel, naamlik "wat is die mees toepaslike regsinstrumente vir die beskerming van inheemse kennisstelsels sonder om die publieke domein in gevaar te stel?"

Om hierdie vraag te kon beantwoord is die publieke domein vanuit drie perspektiewe ontleed, naamlik internasionale regsinstrumente, menseregte en IE-regte. Daar is gevind dat nie een van hierdie perspektiewe tot 'n eng interpretasie van die publieke domein lei nie – hulle het trouens almal ten doel om die publieke domein te verbreed.

Hierdie vroeë bevindings oor die publieke domein het gehelp om die grondbeginsels van die publieke domein op internasionale regsinstrumente en hul toepassing op IKS toe te pas. In hierdie verband is aangetoon dat die bestaande internasionale regsinstrumente, sowel as die natuurlike ontwikkeling van hierdie instrumente oor dekades, voldoende voorsiening maak vir die beskerming en kommersiële benutting van IKS wêreldwyd. Daar is egter 'n voorbehoud: IKS moet deur die WIPO-lens bekyk word, wat voorsiening maak vir die duidelike afbakening van kategorieë van

IKS, naamlik tradisionele kennis, tradisionele kulturele uitdrukkings en genetiese hulpbronne. Die Bern-konvensie is byvoorbeeld gegrond op die drie beginsels van *droits des auteurs*, *droit moral* en *domaine public*. Die grense van die publieke domein binne die konteks van IKS kan met al drie hierdie beginsels versoen word, en nasionale wetgewers hoef slegs hierdie beginsels op nasionale wetgewing toe te pas.

Met hierdie insigte oor internasionale regsinstrumente, is 'n paar lande ontleed om vas te stel hoe hulle hul plaaslike uitdagings met betrekking tot IKS aanspreek. Die lande wat ontleed is, het almal ten doel gehad om internasionale regsinstrumente waaraan hulle onderteken is, te oorweeg, terwyl hulle landspesifieke IKS-verwante regspraak ontwikkel, hoewel dit nie gesê kan word dat dit dieselfde is in elke land nie. Geen van die bevindinge wat op hierdie lande betrekking het, kon oortuigende argumente verskaf oor hoekom 'n sui generis-stelsel vir IKS kan werk nie.

Die navorsing het toe beweeg na 'n regsontleding van Suid-Afrikaanse wetgewing met betrekking tot IKS. Daar is getoon dat Suid-Afrikaanse wetgewing oor IE in die algemeen goed belyn is met internasionale regsinstrumente. Hierdie bevindinge het gehelp met die betrokke navorsingsvraag en was instrumenteel om tot die vroeë gevolgtrekking te kom dat IKS netjies inpas by Suid-Afrika se huidige IP-regimes en hul gepaardgaande openbare domeine.

Regdeur die proefskrif is die regte en verpligtinge van IKS-regtehouers afgebaken aangesien geen reg absoluut is nie, soos aangetoon is toe die Suid-Afrikaanse Grondwet bespreek is. In hierdie verband moet die *droit-moraal* van individue uit inheemse volke en plaaslike gemeenskappe, sowel as die inheemse mense en plaaslike gemeenskappe, gerespekteer word. Hierdie benadering het gelei tot meer praktiese maatreëls om te verseker dat sake soos vooraf ingeligte toestemming, geheimhouding en heiligheid, billikheid en toegang tot tradisionele kennis, tradisionele kulturele uitdrukkings en genetiese hulpbronne, asook winsdeling alles binne die grense van die publieke domein verstaan word.

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LIST OF ACRONYMS, ABBREVIATIONS AND SHORT TITLES

4IR	Fourth industrial revolution
ABS	Access and benefit sharing
ADR	Alternative dispute resolution
AI	Artificial Intelligence
ALRC	Australian Law Review Commission
Am U Int'l L Rev	American University International Law Review
<i>AOC</i>	<i>Appellation d'origine controlee (French of AOO)</i>
AOO	Appellation of origin
ARIPO	African Regional Intellectual Property Organization
AU	African Union
BC	Before Christ
BSA	Benefit Sharing Agreement
Biodiversity Act	National Environmental Management Bioprospecting Act 10 of 2004
BYU L Rev	Brigham Young University Law Review
CABI	Centre for Agriculture and Biosciences International
Calif L Rev	California Law Review
CAPASSO	Composers, Authors and Publishers Association
Cardozo Arts & Ent L J	Cardozo Arts & Entertainment Law Journal
Case W Res L Rev	Case Western Reserve Law Review
CBD	Convention on Biological Diversity
CC	Constitutional Court, South Africa
CE	Common Era (ie, the Islamic reference to years)
CGIAR	Consultative Group on International Agricultural Research

Chi J Int'l L	Chicago Journal of International Law
CIPC	Companies and Intellectual Property Commission
CJEU	Court of Justice of the European Union
CMC	Complementary Medicines Committee
Constitution	Constitution of the Republic of South Africa, 1996
CPPDCE	Convention on the Protection and Promotion of the Diversity of Cultural Expressions, UNESCO
CRC	Constitutional Review Committee
CRRRI	Central Rice Research Institute, India
CPWCNH	Convention concerning the Protection of the World Cultural and Natural Heritage, UNESCO
CSICH	Convention for the Safeguarding of the Intangible Cultural Heritage, UNESCO
CSIR	Council of Scientific and Industrial Research (<i>note that the same acronym is used in South Africa and India</i>)
DAC	Department of Art and Culture (<i>In 2019, DAC changed to DSAC</i>)
DAK Network	Doman-Nommoa, Autshumao en Krotoa Network (ie three Khoisan leaders' names)
DALRRD	Department of Agriculture, Land Reform and Rural Development
DALRO	Dramatic, Artistic and Literary Rights Organisation
DDS	Deccan Development Society, India
DEA	Department of Environmental Affairs (<i>In 2019, DEA changed to DEFF</i>)
DEAT	Department of Environmental Affairs and Tourism (<i>DEAT changed to DEA, and in 2019, to DEFF</i>)
DEFF	Department of Environment, Forestry and Fisheries (<i>formerly DEAT and DEA</i>)
DIW	Derivative Indigenous Works
DMC Act	Digital Millennium Copyright Act, USA

DRM	Digital Rights Management
DSAC	Department of Sports, Art and Culture (<i>formerly, DAC</i>)
DSI	Digital Sequence Information
DSI	Department of Science and Innovation (<i>formerly, Department of Science and Technology (DST)</i>)
dti	Department of Trade and Industry
Emory LJ	Emory Law Journal
EPO	European Patent Office
EU	European Union
EUCFR	Charter of Fundamental Rights of the European Union
FIFA	<i>Federation Internationale De Football Association</i>
Fordham IP M&E L J	Fordham Intellectual Property, Media and Entertainment Law Journal
FRAND	Fair, Reasonable and Non-Discriminatory Licensing
FPIC	Free Prior Informed Consent
Ga J Int'L & Comp L	Georgia Journal of International and Comparative Law
GATT	General Agreement on Tariffs and Trade
GCM	Geographic Certification Marks
GG	Government Gazette
GI	Geographical indications
GIAN	Grassroots Innovation Augmentation Network, India
GIG Act	Geographical Indications of Goods (Registration and Protection) Act, India
GM	Genetically modified
GMO	Genetically modified organism
GN	Government Notice / General Notice in Government Gazette

GR	Genetic resources
GURT	Genetic Use Restriction Technology
HC	High Court, South Africa
Hum Rts Q	Human Rights Quarterly
IBR	Indigenous Biological Resources
IC	Indigenous Community (ICs)
ICC	International Criminal Court
ICE	Indigenous Cultural Expressions
ICH	Intangible cultural heritage
ICT	Information and Communication Technology
IFPMA	International Federation of Pharmaceutical Manufacturers and Associations
IGC	WIPO's Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
IGM	Indigenous Genetic Material
IGR	Indigenous Genetic Resources
IK	Indigenous Knowledge
IK Act	Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019
IKAP	Indigenous Knowledge Advisory Panel
IKS	Indigenous Knowledge Systems
ILO	International Labour Organisation
INLP	Indigenous Nations Library Program, USA
IPLA Act	Intellectual Property Laws Amendment Act 28 of 2013
IPLC	Indigenous Peoples and Local Communities
IP(R)	Intellectual Property (Rights)

IPR Act	Intellectual Property Rights from Publicly Financed Research and Development Act 51 of 2008
iTHPC	interim Traditional Health Practitioners Council
ITPGR	International Treaty on Plant Genetic Resources for Food and Agriculture
IW	Indigenous works
J World Intellect Prop	Journal of World Intellectual Property
Law & Contemp Probs	Law and Contemporary Problems Journal
LDC	Least Developed Countries
LSP	Loka Samabaya Pratisthana, India
Marq IP L Rev	Marquette Intellectual Property Law Review
MASA	Musicians Association of South Africa
MCC	Medicines Control Council (<i>replaced with SAHPRA in 2015</i>)
MFN	Most Favourite Nation
MMDRA Act, 1998	Medicines and Medical Devices Regulatory Authority Act 132 of 1998
MPASA	Music Publishers Association of South Africa
MqJBL	Macquarie Journal of Business Law
MRSA Act, 2002	Medicines and Related Substances Amendment Act 59 of 2002
MRSA Act, 2008	Medicines and Related Substances Amendment Act 72 of 2008
MRSA Act, 2015	Medicines and Related Substances Amendment Act 14 of 2015
MRSC Act, 1965	Medicines and Related Substances Control Act 101 of 1965
MRSCA Act, 1997	Medicines and Related Substances Control Amendment Act 90 of 1997
MTA	Material Transfer Agreement
MTO	<i>Museo Textil de Oaxaca, Mexico</i>

Nw J Tech & IP	Northwestern Journal of Technology and Intellectual Property
NCA	National Credit Act
NCIK	National Council for Indigenous Knowledge
NDIK	National Database for Indigenous Knowledge
NDoH	National Department of Health
NGO	Non-Government Organisation
NHR Act	National Heritage Resources Act 25 of 1999
NIAAA	National Indigenous Arts Advocacy Association, Australia
NIACA	National Indigenous Arts and Cultural Authority, Australia
NIF	National Innovation Foundation, India
NIKSO	National Indigenous Knowledge Systems Office
NIKMAS	National Indigenous Knowledge Management System
NKC	National Khoi-San Council
NRF	National Research Foundation
NRF PMC	NRF Project Management Committee
NTIK	National Trust for Indigenous Knowledge
OA	Open Access
PBR Act	Plant Breeders' Right Act 51 of 1976, or Act 12 of 2018
PER/PELJ	Potchefstroomse Elektroniese Regsblad/Potchefstroom Electronic Law Journal
PCT	Patent Cooperation Treaty
PGR	Plant Genetic Resources
PIC	Prior Informed Consent
PhRMA	Pharmaceutical Research and Manufacturers of America
PMASA	Pharmaceutical Manufacturers Association of South Africa
PP Act	Performers' Protection Act 11 of 1967

PPVFR Act	Protection of Plant Varieties and Farmers’ Rights Act, India
Proc	Proclamation
RAF	Road Accident Fund
RCEP	Regional Comprehensive Economic Partnership Agreement
RiSA	Recording industry of South Africa
SA	South Africa
SAB	South African Breweries
SADC	Southern African Development Community
S Afr Mercantile L J	South African Mercantile Law Journal
SAHRA	South African Heritage Resources Agency
SAMPRA	South African Music Performance Rights Association
SAMRO	Southern African Music Rights Organisation
SAHPRA	South African Health Products Regulatory Authority (<i>since 2015 - formerly known as the MCC and the DRC</i>)
SARS	South African Revenue Services
SDG	Sustainable Development Goals, UN
SECI	Socialisation, Externalisation, Combination and Internalisation
SRISTI	Society for Research and Initiatives for Sustainable Technologies and Institutions, India
TCE	Traditional Cultural Expressions
T Jeff L Rev	Thomas Jefferson Law Review
TK	Traditional Knowledge
TKDL	Traditional Knowledge Digital Library, India
TPM	Technological Protection Measures
TMC	Traditional Medicine Committee (<i>used by the former MCC</i>)
TMK	Traditional Medicinal Knowledge

THRHR	<i>Tydskrif vir Hedendaagse Romeins-Hollandse Reg</i> (Journal for Contemporary Roman-Dutch Law)
TRIPS Agreement	Trade-Related Aspects of Intellectual Property Rights Agreement
TRT	Trademark Registration Treaty, WIPO
TSAR/JSAL	<i>Tydskrif vir Suid Afrikaanse Reg</i> (Journal for South African Law)
TT	Technology Transfer
TW	Traditional Work
UBC L Rev	University of British Columbia Law Review
UC Davis L Rev	University of California, Davis School of Law - Law Review
UKPC	United Kingdom Pricy Council
UN	United Nations
UN ICESCR	United Nation's International Covenant on Economic, Social and Cultural Rights
UN DRIP	United Nations' Declaration on the Rights of Indigenous Peoples
UNESCO	United Nations' Educational, Scientific and Cultural Organisation
UN ICCPR	United Nations' International Covenant on Civil and Political Rights
UN UDHR	United Nations' Universal Declaration on Human Rights
UPOV	International Union for the Protection of New Varieties of Plants
UPOV Convention	UPOV International Convention for the Protection of New Varieties of Plants
URAA	Uruguay Round Agreements Act
USA	United States of America
USTR	United States Trade Representative
WCT	WIPO Copyright Treaty

WHO	World Health Organisation
WIPO	World Intellectual Property Organisation
WIPO-IGC	WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
Wm & Mary Bill Rts J	William and Mary Bill of Rights Journal
WPPT	WIPO Performances and Phonograms Treaty
WTO	World Trade Organisation
Yale J Int'l L	Yale Journal of International Law

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CHAPTER 1 INTRODUCTION TO INDIGENOUS KNOWLEDGE SYSTEMS

1.1 m, Chapter overview

Policy-makers, intellectual property practitioners and legal scholars are often consulted on the divide between indigenous and other knowledge systems. Intellectual property rightsholders seek advice on how they can strengthen and secure their proprietary rights or broaden the public domain, other interest groups such as indigenous peoples and local communities want to know how the public domain can be enclosed. One reason for this divide seems to be that the Intellectual Property regime operates in a sphere where the public domain is demarcated by individual rights, as opposed to the indigenous knowledge systems regime where the public domain is demarcated by social embeddedness and connected to the land on which indigenous peoples and local communities live. This problem manifested itself over centuries of colonialism and technological development worldwide, but also because "indigenous worldviews do not share the pre-appropriation narrative of [the] public domain from the lens of Western social contract theory".⁵

Since the late 20th century, more than twenty international and regional instruments of particular importance to indigenous knowledge systems (hereafter IKS) have come into effect.⁶ As a result, the importance of IKS of indigenous peoples and local communities (hereafter IPLC) have begun to be recognised by national governments (mainly in developing countries) and by international organisations which have demanded protection for traditional knowledge (hereafter TK).

These international developments have posed new legal challenges to the public domain and intellectual property (hereafter IP) regimes worldwide. Okediji was one of the first authors to appreciate the importance of delineating the public domain with specific reference to IKS, and to address the concerns raised among public domain scholars that new proprietary rights for IKS pose a threat to science and

⁵ Oguamanam 2018 *J World Intellectual Prop* 9.

⁶ See Annexure C for a list and summary of these international law instruments.

innovation.⁷ She also points out that TK is "intimately connected to a depletable resource, namely, land".⁸ As a result, a nuanced approach is required to understand the public domain in the contexts of IKS and the land on which IPLC practise it.

South Africa is the third most biodiverse country globally with a diverse composition of IPLC. As a result, South Africa's IKS landscape has its share of confrontations with the international IP regimes and genetic resources (hereafter GR), hence the need further to investigate its legal framework governing IKS.

1.2 Examples

Recent examples where the boundaries between South African IKS, the international IP regimes and the public domain were tested in formal fora are the Rooibos (*Aspalathus linearis*) and its herbal tea and health products, and *Mbube*, the theme song from the film *The Lion King* and a long list of medicinal plants. Other notable South African examples are the marula tree (*Sclerocarya birrea*) and its nutritional properties and the alcoholic beverage, and the South African Coat of Arms. These examples are now briefly discussed to contextualise the chapters that will follow, starting with the Coat of Arms because of its sacred nature.

1.2.1 Coat of Arms

Today, IKS manifest itself in many ways other than merely as knowledge systems and includes culture, secrets, sacred ceremonies, or symbols that express a group's identity and social embeddedness. Here the Coat of Arms of the Republic of South Africa serves as an example. As the highest visible symbol of state, it aims to represent a diverse and multi-faceted society. For example, the two San figures are depicted facing one another in unity, with "!ke e: /xarra //ke" written in the Khoisan language of the /Xam people, literally meaning: diverse people unite – indeed a very powerful way to celebrate South Africa's young democracy.

The Coat of Arms belongs to all the people of South Africa. To see it as a picture

⁷ Okediji 2018 *Centre for International Governance Innovation* 1.

⁸ Okediji 2018 *Centre for International Governance Innovation* 8.

with proprietary rights to some elements of the Coat of Arms is to fail to see what it is doing or what it means in a specific context. Coleman explains this when she analyses recent issues related to the alleged appropriation of Aboriginal visual art in relation to the Australian Coat of Arms⁹ and their AUS\$10 note.¹⁰

Imagine a scenario where the San community in South Africa claims sacred ownership of the depiction of two San people from the famous Linton Panel on the Coat of Arms. In such a case there will be multiple legal challenges if a route is sought in terms of the current legal framework. For example, they will first have to establish if the legal object (Coat of Arms) is susceptible to ownership, and second that the San community is a juristic person.¹¹

Like Australia, South Africa was not spared of controversies concerning our Coat of Arms, albeit not directly – a similar graphic depiction of Khoisan people used on the Coat of Arms, found its way to packaging for wine, as illustrated below. The undignified treatment of the Khoisan¹² Sarah Baartman in the 19th century¹³ left a scar among the Khoisan people which made it easy to comprehend why the *DAK Netwerk* fiercely opposed wine packaging that resembles a sacred and religious rain dance, saying that "the packaging is making a mockery of their sacred ceremonies, where no alcohol is consumed".¹⁴ This matter, which is currently under public scrutiny in South Africa, strongly reminds of the *Crazy Horse* case,¹⁵ and the

⁹ Graber and Burri-Nenova (eds) *Intellectual Property and Traditional Cultural Expressions in a Digital Environment* 7, 50; She argues that culture is far more dynamic than art. In this book, Coleman illustrates this example with reference to the Australian Coat of Arms. She says "the Australian Coat of Arms does not provide information about kangaroos and emus, although it does depict them, and it is not a picture. To see it as a picture is to fail to see what it is doing or what it means in a specific context".

¹⁰ See Figure 4.2 and the discussion related to this figure.

¹¹ See para 5.13 where new legislation on IKS in South Africa is discussed.

¹² Note the difference between Khoi-Khoi, San and Khoisan people, as explained in Annexure A, the Glossary. Khoisan is the collective terms for Khoi-Khoi people, who are nomadic pastoralists, and the San people, who are hunter-gatherers.

¹³ See para 5.2.1; Also see de Haas 2011 *South African Journal of Bioethics and Law* 15.

¹⁴ Jansen *Rapport* 1.

¹⁵ See para 3.3.2.1.1

Australian AUS\$10 controversy.¹⁶

In the IKS discourse, dignity relates to the respectful dealing with sacred and secret TK and traditional cultural expressions (hereafter TCE) of IPLC. The two contrasting pictures below illustrate two extreme examples where no narrative is needed: these examples, namely the Coat of Arms and the wine packaging expose gaps in current and proposed legislation in respect of sacredness of TK and TCE, as well as ownership and human dignity – two human rights entrenched in the *Constitution of the Republic of South Africa*, 1996 (hereafter the *Constitution*).¹⁷

	
Figure 1.1 Coat of Arms of South Africa ¹⁸	Figure 1.2: Rain Dance wine ¹⁹

These two contrasting uses of the same Khoisan artwork could just as well be seen as a visual representation of the research problem that will be defined within the

¹⁶ See Figure 4.2.
¹⁷ *Constitution of the Republic of South Africa* 1996; See para 5.2 where South African human rights in respect of IKS is discussed.
¹⁸ In 1918, the Linton Panel (2m by 8m solid rock), as represented on the South African Coat of Arms was discovered in a cave on the farm Linton that was full of ancient San rock art paintings. It is now housed in the South African Museum in Cape Town.
¹⁹ Jansen *Rapport* 1. The packaging is currently under review; Also see www.daknetwerk.co.za; The DAK Network is a Khoi language pressure group in South Africa. DAK refers to three Khoi leaders, Doman-Nommoa, Autshumao en Krotoa.

next few paragraphs. Further examples are needed before one can define the research problem, which brings us to the Rooibos saga.

1.2.2 Rooibos

Rooibos' health benefits are acknowledged worldwide. Rooibos, a bush-like plant, is indigenous to the North-Western Cape Province, the Khoi-Khoi and San communities' traditional home.²⁰ The Khoi-Khoi and the San's traditional knowledge was limited to knowledge of the bush and its various health applications but they did not use it as a tea. With the arrival of the European settlers in the region, bringing with them their knowledge of tea brewing, the local populations started to enjoy Rooibos as a tea.³²⁰ Today, both groups benefit from each other's knowledge.

South Africa is today a signatory to the *Nagoya Protocol*²¹ which requires industries that trade in indigenous biological resources – such as Rooibos – to share benefits accruing from their trade with TK holders fairly and equitably. Subsequently, in 2019 the South Africa Rooibos Council and the Khoi-Khoi and San signed an access and benefit sharing agreement, which briefly entails a benefit sharing levy at 1.5% of the farm gate price of Rooibos, which will be managed by the National Khoi-San Council (hereafter NKC).²²

A few issues should be kept in mind when determining how this 1.5% levy will be distributed fairly and equitably among the Khoi-Khoi and San communities. First, the knowledge surrounding Rooibos' renowned health virtues is in the public domain; second, no active compounds of Rooibos have been patented; third, the land on which Rooibos is cultivated stretches over areas never permanently occupied or owned by the Khoi-Khoi and San and which is currently owned by private landowners; fourth, the Khoi-Khoi and San communities have not contributed to the industrialisation and commercialising of Rooibos; and lastly,

²⁰ Rooibos Council, *Khoi and San to share in benefits of Rooibos* (Rooibos Council 2019) 1.

²¹ Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the Convention on Biological Diversity (2010).

²² Rooibos Council *Khoi and San to share in benefits of Rooibos* 2; In 2022, the first payment of R12.2 million was made. Business Insider *Business Insider SA* 1.

whether the financial reward is necessarily the best available option for benefiting these communities.

Another controversy relates to the Rooibos trademark that was registered in the United States of America (hereafter USA) in 1994. Later, under public pressure, the trademark was abandoned by its owner, resulting in this well-known international name reverting to the public domain.²³ In 1993, Ms Theron, originally from South Africa, filed a trademark application for the word "Rooibos" with the USA Patent and Trademark Office, which was granted and later sold to Burke International. In 2002, the company Rooibos Limited from South Africa filed a trademark application for "Rooibos the Red Tea". They opposed Burke International, which restricted the term "Rooibos" to only those companies that were prepared to enter into a business relationship with Ms Burke-Watkins. The matter started to receive publicity when the Wupperthal Cooperative, representing smallholder farmers in the region, got involved.²⁴ The South African industry then united around a common cause for the protection of Rooibos as a geographical indication (hereafter GI).

Finally, in 2014, Rooibos received status as the first GI for a South African product other than wine and spirits. Ironically, while most GI refer to a geographical region, Rooibos refers to the reddish bush itself. At the same time, the South African government gazetted rules governing the commercial use of the term 'Rooibos' on products, using the outdated *Merchandise Marks Act 17 of 1941*.²⁵

This story highlights, on the positive side, how it is possible for government, trade and industry, and IPLC to unite around the public domain – all three stakeholders acted in the best interest of society. On the negative side, the story highlights how the wrong legal instruments were used, by putting a plaster on a controversy (ie the use of outdated legislation),²⁶ instead of using the opportunity to develop sound

²³ WIPO, *Disputing a Name, Developing a Geographical Indication* (WIPO 2018) 1-3.

²⁴ WIPO *Disputing a Name, Developing a Geographical Indication* 1-3.

²⁵ Van der Merwe 2014 *Journal of Intellectual Property Law & Practice* 417.

²⁶ *Merchandise Marks Act 17 of 1941*; Incidentally, this outdated act also came to the rescue of the South African government during the 2010 FIFA World Cup – see para 5.17.

legal principles pertaining to the public domain in a diverse and multi-faceted society.

1.2.3 *Marula tree*

Another example is the marula tree. The nutritional properties of the marula fruit and its seeds have been known to humankind since 9000 BC. Marula is indigenous to Southern Africa,²⁷ and apart from being a part of their seasonal diet, IPLC also collect the fruit and seeds as a source of income.²⁸ The fermented fruit's virtues are also well-known, thanks to a classic South African film a few decades ago.²⁹

The alcoholic beverage companies currently producing and exporting the famous marula liqueur do not necessarily acquire the fruit from the IPLC but grow and harvest it on privately owned farms. Furthermore, private companies are now in control of the marula fruit's industrial fermentation process, which gives it its distinct flavour. Likewise, industrial oil extraction technology is either owned by private companies or publicly available. The active compounds used for health care products are synthesised by scientists, which is incidentally also the case with the hoodia plant (*Hoodia gordonii*).³⁰ Therefore, the original industrial extraction and manufacturing processes are in the public domain, and private companies are protecting their industrial scaling abilities instead of IPLC protecting their TK. This means that IPLC, or any organisation, community or company, are free to start an industry based on the information available in the public domain³¹ (as is Namibia's case).

The marula plant has a further fundamental significance – the tree's sacred nature among certain IPLC. For example, the Venda people believe that an infusion of the

²⁷ Southern Africa includes the following African countries: Angola, Botswana, the Comoros, Eswatini (formerly known as Swaziland), Lesotho, Madagascar, Malawi, Mauritius, Mayotte, Mozambique, Namibia, Réunion, Saint Helena, Ascension and Tristan da Cunha, the Scattered Islands in the Indian Ocean, South Africa, Zambia, and Zimbabwe.

²⁸ WIPO, *A tree and TK: A recipe for development* (WIPO 2015) 3.

²⁹ *The Gods Must be Crazy*, Jamie Uys, 1980.

³⁰ Note that once an active compound (molecule) can be synthesised, the need to propagate the plant/tree from which the molecule can be extracted by means of industrial processes is negated.

³¹ See para 4.5.

tree's bark can determine the sex of an infant, and it is therefore vital that these sacred trees should not be felled.³² This sacred aspect of IKS immediately calls land issues into play – an issue with which Australia and its Aboriginal Australians have also grappled for many years.³³

This story highlights the huge chasm between trade and industry and IPLC, but simultaneously also how IK can successfully be commercialised without compromising the sacred nature of some aspects related to the tree and its divine fruit, and the land on which it is cultivated.

1.2.4 *Mbube song*

In the Disney film, *The Lion King*, *The lion sleeps tonight*, derived from *Mbube*, a song written and composed by Solomon Linda in 1939, was allegedly used without his permission by Disney in its film.³⁴ Lawyers for Solomon Linda's heirs relied on the British Imperial legislation to claim reversionary rights against Disney. Section 5 of South Africa's *Copyright Act* 1916³⁵ was applicable to Linda's song. Section 5(2) states that 25 years after the death of the author any rights concerning copyright shall devolve on his legal personal representatives as part of the author's estate.³⁶

The matter was settled out of court, purportedly to avoid high profile publicity during a turbulent and sensitive political time in South Africa.³⁷ Like the Rooibos saga, which

³² MarulaNaturalProducts 2020 <http://www.marula.org.za/legends.htm>.

³³ See para 4.2.

³⁴ See para 5.7.6 where this example is explained in more detail.

³⁵ In 1916, the Union of South Africa (present day Republic of South Africa), incorporated the *British Imperial Copyright Act* 1911 into South African law.

³⁶ Section 5(2) of the *British Imperial Copyright Act*: "Provided that, where the author of a work is the first owner of the copyright therein, no assignment of the copyright, and no grant of any interest therein, made by him (otherwise than by will) after the passing of this Act, shall be operative to vest in the assignee or grantee any rights with respect to the copyright in the work beyond the expiration of twenty-five years from the death of the author, and the reversionary interest in the copyright expectant on the termination of that period shall, on the death of the author, notwithstanding any agreement to the contrary, devolve on his legal personal representatives as part of his estate, and any agreement entered into by him as to the disposition of such reversionary interest shall be null and void, but nothing in this proviso shall be construed as applying to the assignment of the copyright in a collective work or a licence to publish a work or part of a work as part of a collective work".

³⁷ Dean 2006 *WIPO Magazine* 8-10; The legal argument related to reversionary rights, which date back to section 5(2) of the *British Imperial Copyright Act*, and which was applicable in the Union

relied on the outdated *Merchandise Marks Act*,³⁸ Linda's heirs had to rely on outdated British Imperial legislation.

This story shows the urgent need for IKS related legislation to be developed within a Constitutional framework, because international fora will simply disregard South Africa's contributions to IKS if South Africa continues to rely on legislation that dates from the colonial era, amongst other reasons. This story also highlights the ability and power of copyright legislation, as a legal instrument, to protect authors originating from IPLC and to address the divide between indigenous and other knowledge systems. As will be discussed, the *Copyright Amendment Bill*³⁹ aims to achieve this objective but is not without its problems.⁴⁰

1.2.5 Medicinal plants and traditional medicines

From the various forms of IKS, traditional medicines (hereafter TM) constitute the most important source of knowledge and of healing among IPLC. Developed countries are acutely aware of the rich body of knowledge about biodiversity. For example, the USA's National Cancer Institute (hereafter NCI) started collecting plant and organism samples from indigenous territories as early as 1960,⁴¹ primarily because of the high cost of bringing new medicines to the marketplace.

The list of medicinal plant controversies in South Africa is endless. Only the cancer bush (*Sutherlandia frutescens*) will briefly be referred to since studies by Wendland

of SA at that time. In SA this right is still applicable to works made before 11 September 1965. *Mbube* is the song of which the original Zulu tune was composed by Solomon Linda and it became famous after Disney's movie *The Lion King* was released. The settlement included the following: "The estate was to receive payment for past uses of *The Lion Sleeps Tonight* and an entitlement to future royalties from its worldwide use. *The Lion Sleeps Tonight* was to be acknowledged as derived from "Mbube". Solomon Linda was to be acknowledged as a co-composer of *The Lion Sleeps Tonight* and to be designated as such in the future. A trust was to be formed to administer the estate's copyright in *Mbube* and to receive on their behalf the payments due from the use of *The Lion Sleeps Tonight*. Reversionary rights are discussed in para 5.7.6.

³⁸ *Merchandise Marks Act*.

³⁹ *Copyright Amendment Bill* 2018; In June 2020, the Bill has been returned to parliament; The Bill is discussed in para 5.7.7; See Parliamentary Monitoring Group 2020 <https://pmg.org.za/bill/705/>.

⁴⁰ The *Copyright Amendment Bill* and the application of reversionary rights and derivative works within the context of IKS are discussed in para 5.7.6.

⁴¹ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 8.

and others on other high-profile GR such as the hoodia⁴² and *pelargonium* plants⁴³ are well reported. Incidentally, these three plants are endemic to Southern Africa, with some species of *pelargonium* also found in Australasia.

The cancer bush is an example where its traditional medicinal properties have been discovered and used by more than one community, namely the Afrikaners (as a *boereraat*), Khoi, Nguni, San and Sotho people of South Africa. For this reason, Harms suggests that none of these IPLC can claim ownership of the plant and that "ownership of traditional knowledge by indigenous people, or local communities can create expectations that cannot be fulfilled [by legislation]".⁴⁴

This example highlights that IKS is not only about indigenous people's rights, but, as the World Intellectual Property Organisation (hereafter WIPO) suggests, it is about both indigenous peoples and local communities. IKS is inclusive by nature and the public domain cannot be closed to derive exclusive rights for some sections of the society only – even more so because these medicinal plants are endemic to many regions and not one country.

1.3 The intimate relationship between land and IKS

The five examples⁴⁵ discussed above would not be complete without reference to the role of land tenure and access to land in the IKS discourse. In Namibia, for example, there are two communities – the bush people of the Caprivi Strip, and the San people in the vicinity of the Kgalagadi Transfrontier Park – for whom the interaction between land use and IKS is highly relevant.

From a historical perspective, the German and British colonial borders in Africa played a significant role in those communities' composition. Because the two communities are essentially nomadic, they pay scant regard to these national

⁴² See para 4.3.7.2. Hoodia is often referred to in this thesis.

⁴³ Both Wendland and Harms refer to this biopiracy case study; Wendland and Jiao 2018 *African Indigenous Medical Knowledge and Human Health* chapter 2, 1; Harms 2009 *THRHR* 187.

⁴⁴ Harms 2009 *THRHR* 187; At that time Harms referred to the *Intellectual Property Laws Amendment Bill* 2010 that has subsequently been enacted as the *Intellectual Property Laws Amendment Act* 28 of 2013; This Act is not yet in force.

⁴⁵ See paras 1.1.2-5.

borders. The nomadic existence means that these borders are traversed in the search for food and survival. In the San community, rainfall determined their movement between South Africa, Botswana, and Namibia. They took their knowledge of food, medicinal plants (eg the hoodia plant) and animals with them when moving. This knowledge was transferred from one generation to the next through storytelling and sacred ceremonies.

These are not unique examples of IPLC claiming at least unfettered access to land – see the palm oil tree example.⁴⁶ Modern land tenure legislation often prevents IPLC from accessing land, notably in Australia.⁴⁷ The United Nations (hereafter the UN) has started to address this sensitive interaction between land tenure and IKS in articles 25 and 26 of the *UN Declaration on the Rights of Indigenous Peoples* (hereafter *DRIP*).⁴⁸ Abate and Kronk, environmental law and native law scholars respectively, also recognised this problem. They argue that "under international human rights law, indigenous peoples bear both substantive and procedural land and resource rights".⁴⁹ Substantive rights include: i) the right to legal recognition and demarcation of the land, ii) the right to ownership (with associated rights such as the use of the fruits of the lands), and iii) the right to use the natural resources associated with the land.⁵⁰ Procedural rights include as a minimum, indigenous peoples' right to be part of a process of free, informed, prior, meaningful consultation, especially when large-scale development projects are involved.

⁴⁶ Coombe and Malik "Rethinking the Work of Geographical Indications in Asia: Addressing Hidden Geographies of Gendered Labor" 97. Palm oil trees offer a further example of the role of land in the IKS discourse. These trees originate from West Africa, but it was in Southeast Asia that they were first widely cultivated. For example, Malaysia's poverty-alleviation initiatives are built around the palm oil industry. Incidentally, palm oil trees were introduced from their West African origins to Southeast Asia by colonialists. Today, West Africa has the land, but not the cultivation or oil extraction technologies. In contrast, Malaysia has limited land, but the ability to cultivate these trees and the technologies to produce oil.

⁴⁷ See for example the discussion on the Aboriginal Australians and the Torres Strait Islanders in para 4.2.6.

⁴⁸ Articles 25 & 26 of the United Nations' Declaration on the Rights of Indigenous Peoples 107th plenary meeting, UN, 13 September 2007 (2007); *DRIP* is further discussed in para 3.8.5.

⁴⁹ Abate and Kronk (eds) *Climate change and indigenous knowledge* 57.

⁵⁰ Abate and Kronk (eds) *Climate change and indigenous knowledge* 56; The authors conceded that the right to sub-surface resources, such as minerals and oil, is yet to be settled and that the debate in this regard is ongoing.

This procedural right of indigenous peoples is affirmed in article 32(2) of *DRIP*, which reads:

States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilisation or exploitation of mineral, water or other resources.⁵¹

In summary, the Rooibos and other examples that were touched upon all have one common denominator, namely land tenure: In the case of Rooibos, the land is not owned by IPLC. Marula grows on private and communal land. Cancer bush grows in the wild, contributing to South Africa's richness of biodiversity. The Coat of Arms' symbols all relate to life on earth. The drumbeat of *Mbube* resonates on African soil.

The IP regime can therefore not be ignorant of the important role that land tenure plays in the IKS discourse. With these examples to provide context, the next paragraph will formulate the research question.

1.4 Research question

Worldwide and in South Africa there have been controversial onslaughts on the public domain as is clear from the examples above on the tension between IKS and IP on the one hand, and the public domain on the other – or as has been said earlier – the divide between indigenous and other knowledge systems. This thesis aims to find a balance between the possible competing interests of the public domain, IP and IKS within diverse societies and within the framework of the *Constitution*, which provides for fair and equitable rights for all citizens. It is argued that with legal certainty on the boundaries of the public domain for IKS, competing proprietary and land tenure interests among stakeholders in diverse societies can be mediated.

In 2019 the President of South Africa assented to the *Protection, Promotion, Development and Management of Indigenous Knowledge Act* (hereafter *IK Act*).⁵² This piece of legislation is the result of national policy development concerning IKS

⁵¹ Article 32(2) of *DRIP* (2007).

⁵² *Promotion, Development and Management of Indigenous Knowledge Act* Act 6 of 2019.

since 2004. The *IK Act*, together with the *Intellectual Property Laws Amendment Act, 2013* (hereafter *IPLA Act*) and the *Copyright Amendment Bill, 2018*, which was referred back to parliament by the President in July 2020,⁵³ illustrate the need for the pro-active development of jurisprudence in this particular field of study.

Apart from these three new pieces of legislation, the *National Environmental Management Biodiversity Act* 10 of 2004 (hereafter *Biodiversity Act*)⁵⁴ that has been in force for more than a decade, appears to have been well accepted by South African researchers and industry concerning its impact on IKS. However, in practice the *Biodiversity Act's* implementation leads to many controversies and legal uncertainties – the Rooibos anecdote above is but one example.

Against this background, the main research question is posed – what are the appropriate legal instruments for protecting IKS in South Africa without endangering the public domain?

The emphasis on the public domain is intentional, because many IKS scholars approach their research from human rights, IP, or customary law perspectives, where countries' subjective and regional considerations (eg, colonialism) sometimes contaminate the fundamental legal issues at hand. The public domain is arguably a universal concept that equally applies to the depletable resource, land - and the non-depletable and intangible resource, knowledge. This public domain dimension of IKS aims to contribute to potential research gaps in the field.

This main research question leads to the following secondary questions:

- How is the public domain understood within the context of IKS – or, to what extent should the public domain be open, or closed for IKS?⁵⁵

⁵³ Parliamentary Monitoring Group 2020 <https://pmg.org.za/bill/705/>.

⁵⁴ *National Environmental Management Biodiversity* 10 of 2004.

⁵⁵ Note that chapters one and two aim to obtain some answers to this question.

- Should IKS be treated differently in the public domain, bearing in mind that IKS is perceived to treat traditional property rights of IPLC differently to private property rights?⁵⁶
- How effectively has the copyright paradigm found the adequate balance between user rights and open access to the public domain, without compromising the private property rights of rightsholders from an IP perspective? Furthermore, to what extent should the patent and trademark regimes of IP follow developments in the copyright regime concerning the public domain and IKS?⁵⁷ – with reference to Lange's⁵⁸ insightful article on the public domain.

These questions can only be answered if the public domain is first properly investigated and understood within the context of existing international law instruments and IP regimes. Thereafter, indigenous and customary law pertaining to IKS in some countries, the land tenure and territorial aspects related to IKS, and the influence of traditional land ownership on IKS, will be considered. Human rights perspectives on IKS will also be considered. Finally, with the benefit of the answers to the questions above, one may proceed to consider from a South African perspective whether:

- (i) IKS requires a *sui generis* model; or
- (ii) has the existing normative IP regime evolved to such a level of sophistication that it may provide adequate local and international solutions to the legal challenges pertaining to IKS.

The chapters below are all coherently aligned with this normative approach and

⁵⁶ Note that chapter three aims to obtain some answers to this question from an international perspective.

⁵⁷ Note that chapter four aims to obtain some answers to this question from a South African legislative perspective.

⁵⁸ Lange 1981 *Law & Contemp Probs* 176-168; Also see para 3.3.2.1.1; He sees the public domain as a "field of individual rights fully as important as any of the new property rights", draws strongly on trademark anecdotes and American court cases in connection with the public domain.

tested against the proposed models that aim to balance the rights entrenched in the public domain with those rights that IKS stakeholders claim, while we continue to recognise the divide between indigenous and other knowledge systems.

1.5 Summary of the chapters that follow

The Coat of Arms, Rooibos saga, the *Mbube* song and the medicinal plant examples attest to the vulnerable position in which IPLC find themselves when it comes to the sacred, legal, cultural, and commercial protection of their IKS in South Africa, and how the boundaries of the public domain are challenged.

These examples also attest to the notion that the IP and IKS regimes are not the exclusive domains of rightsholders in technologically advanced societies, or those of IPLC. Rather, both are regimes that function within a public domain where other sectors and stakeholders (such as trade and industry, educators, scientific researchers, policy-makers, inventors, authors, artists, creators, entrepreneurs, landowners, IPLC)⁵⁹ should be equally comfortable with how a government perceives and protects the public domain. Oguamanam best describes these underlying legal issues by pointing to an interface between TK and TCE and each IP regime. For example, the novelty requirement for TK protection using patents; or the tangible format requirements for TCE protection utilising copyright; or the sacred and secret nature of certain traditional marks, symbols, insignias, or designs when trademark protection is sought. These interfaces will remain a source of tension among stakeholders,⁶⁰ hence the more detailed discussion of these terms.⁶¹

In Chapter 2 the fundamental legal principles that define the public domain will be investigated, mainly by means of a comprehensive literature review. In Chapter 3 the public domain is analysed from an international law perspective where international law instruments are investigated to ensure that the study is aligned with international best practices regarding jurisprudence in the field of IKS. In

⁵⁹ Note that IPLC is the preferred international terminology that is used to describe communities where IKS related research is conducted.

⁶⁰ Oguamanam 2019 *African Journal of Information and Communication* 2.

⁶¹ See para 2.4.

Chapter 4 a study of the legal systems of Australia, India, and Mexico is conducted. Chapter 5 applies these insights to the South African IKS landscape, focusing on various pieces of legislation that have relevance to IKS and its interplay with the public domain.

Bearing all these notions of the public domain, user rights, the open access thereto, originality, tangible versus intangible forms of property, time and discoveries versus inventions, and private versus customary property rights in mind, there seems to be a need for governments to provide certainty on the traditional and/or private ownership of IKS, to create meaningful legislative frameworks and incentives for TK, TCE and GR rightsholders to come forward and disclose their knowledge, and to collaborate with researchers and trade and industry for their development and wealth generation activities. The final chapter makes recommendations, and aims to contribute to the IKS discourse and to assist legislators, IP practitioners and academics to better understand the intricacies of IKS.

Finally, IKS cannot be fully understood other than taking a trans-disciplinary approach, which will become evident from the diverse range of scholars cited throughout this thesis. In support hereof, detailed annexures are provided that will assist researchers from all disciplines with IKS and IP related terminology, a summary of international law instruments related to IKS, and other material that will ease cross referencing in this myriad field.

CHAPTER 2 THE PUBLIC DOMAIN AND INTANGIBLE PROPERTY

2.1 Chapter overview

This chapter brings understanding to the fundamental legal principles that define the public domain in relation to intangible property. In order to do so, it is first necessary to clarify some concepts, before moving on to defining the public domain. The public domain is then further analysed from two perspectives, namely international law instruments and IP. Many scholars also analyse the public domain from a human right perspective. Although this is not the approach of choice in this thesis, these arguments are also discussed. These perspectives are discussed to offer a robust perspective of the public domain before it is applied to IKS.

Copyright, as a genus of IP, is then used to illustrate the historical development of the public domain alongside copyright in a technologically advanced society. This is purposefully done to provide a normative platform to discuss IKS from a public domain perspective in the paragraphs that follow.

Readers may find the interchangeable and inconsistent use of certain IKS terms by international organisations, countries and scholars confusing. The next paragraph aims to give some context to these terms, before the public domain is discussed.

2.1.1 Terminologies in context

There is inconsistency with the use of many words and terminologies in the IKS discourse. For example, the use of the words 'indigenous' and 'traditional' and 'local' - as if these concepts are synonymous, to name but a few inconsistencies. With more than "300 million indigenous people in over seventy countries worldwide"⁶² it is important and necessary to fully understand the subtle difference between these terms, among many others before we proceed.⁶³

⁶² Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 1; Other sources, such as UNESCO estimates the number to be between 370 and 500 million.

⁶³ See Annexure A, which comprises of a glossary of IKS related terms.

2.1.1.1 Indigenous vs Traditional vs Local

WIPO uses the collective term Indigenous Peoples and Local Communities (IPLC) when referring to all people in IKS. The UN prefers the term 'indigenous peoples' (notably with the inclusion of the 's' at the end of the word 'people') and does not include local communities. The South African government uses the term 'indigenous communities', which is confusing, because the term is neither aligned with WIPO, nor with the UN – the two leading fora on IKS. These terms require some contextualisation as even more terms, such as traditional communities and traditional peoples are also used by IKS scholars and policymakers.

Mugabe dissects the issue best when he differentiates between traditional peoples and indigenous peoples and argues that traditional peoples are:

Those who hold an unwritten corpus of long-standing customs, beliefs, rituals and practices that have been handed down from previous generations. They do not necessarily have claim of prior territorial occupancy to the current habitat; that is, they could be recent immigrants.⁶⁴

From Mugabe's definition, one can deduce that the difference between traditional peoples and indigenous peoples is that traditional peoples are not necessarily indigenous, but indigenous peoples are always traditional. From this definition one can further deduce that 'local communities', as used by WIPO, refers to traditional peoples as is explained by Mugabe. Traditional peoples can also include both IPLC, where local communities could be recent immigrants, as suggested by Mugabe.⁶⁵ Notably, Mugabe also points to land tenure as common denominator, regardless of the terminology used.⁶⁶ With land tenure in mind the *Convention on Biological Diversity* (hereafter *CBD*)⁶⁷ defines local communities as "human population in a distinct ecological area who depend directly on its biodiversity and ecosystem".⁶⁸

⁶⁴ Shah 2014 *Global Health Governance* 60. Shah quotes from an earlier work of John Mugabe.

⁶⁵ Mugabe 1999 *World Intellectual Property Organization Intellectual Property and Human Rights Geneva, WIPO* 2.

⁶⁶ Mugabe 1999 *World Intellectual Property Organization Intellectual Property and Human Rights Geneva, WIPO* 24.

⁶⁷ Convention on Biological Diversity (1992).

⁶⁸ CBD *Development of Elements of Sui Generis Systems for the Protection of Traditional Knowledge, Innovations and Practices* 5.

Another author, Yu prefers the use of traditional communities, as opposed to indigenous communities because "the former captures a larger group of people who benefit from the protection of folklore and traditional knowledge, innovations, and practices".⁶⁹ Other notable IKS scholars, Helfer and Austin, prefer to refer to indigenous peoples as people who possess their cultural patterns, social institutions, and legal systems.⁷⁰ These are but a few examples of how IPLC are defined.⁷¹

Similarly, a reference to indigenous knowledge (hereafter IK) includes TK, but TK does not necessarily include IK.⁷² Shah goes further and points out that the difference between scientific (formal) knowledge and TK must also be recognised while acknowledging that "knowledge and cultural boundaries are permeable, such that 'global scientific' and 'local indigenous' knowledge are likely to influence each other".⁷³

With these comments in mind, and for consistency throughout this thesis, IPLC will be used consistently and as the preferred collective term where appropriate, or when referring to traditional and/or indigenous people and/or local communities in the South African context. International organisations and individual scholar's preferred use of terms such as IPLC, traditional peoples, indigenous communities, or indigenous peoples, as the case may be, are retained in citations.

2.1.1.2 Knowledge

It is also prudent to have a baseline definition of knowledge. Although the definition of knowledge will fluctuate throughout this thesis, for now, it is defined in the words of Ostrom as:

⁶⁹ Yu "Challenges to the Development of a Human Rights Framework for Intellectual Property " 3.

⁷⁰ Helfer and Austin *Human Rights and Intellectual Property: Mapping the Global Interface* 433; Helfer and Austin refer to indigenous peoples as "peoples who possess their own cultural patterns, social institutions, and legal systems (albeit to different degrees); who claim a historical continuity with precolonial societies; and who are determined to preserve and transmit to future generations their ancestral territories and identities as a basis for their continued existence as peoples".

⁷¹ WIPO IGC, *Glossary of key terms related to IP and GR, TK and TCE* (WIPO 2018).

⁷² Mugabe 1999 *World Intellectual Property Organization Intellectual Property and Human Rights Geneva, WIPO* 2.

⁷³ Shah 2014 *Global Health Governance* 61.

[A] shared resource, a complex ecosystem that is a commons - a resource shared by a group of people that is subject to social dilemmas.⁷⁴

Since 2019, Indigenous Knowledge (notably without the word 'Systems')⁷⁵ is the official terminology used by the South African government for the collective reference to GR, TK, and TCE (TCE is also referred to as folklore).

Despite the South African government's use of IK, in this thesis, IKS is used, unless it is important to differentiate between TK, TCE, and/or GR, in which case reference is made to the specific terminology. This is done to align with WIPO's terminology. WIPO does not refer to IKS in the collective, but rather to TK, TCE and GR as separate subject matters. Since the WIPO approach is supported throughout this thesis these terms require clarification.

2.1.1.3 Traditional knowledge (TK)

WIPO's evolving, but most recent definition of TK is

a living body of knowledge that is developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity.⁷⁶

2.1.1.4 Traditional cultural expressions

WIPO's evolving, but most recent definition of TCE, or folklore is

integral to the cultural and social identities of indigenous and local communities, embodying know-how and skills, and transmitting core values and beliefs.⁷⁷

⁷⁴ Hess and Ostrom (eds) *Understanding Knowledge as a Commons: From Theory to Practice* 3; Elinor Claire Ostrom is a Nobel Laureate in economics. In her works she strongly draws on James Boyle's insights on the public domain.

⁷⁵ Note that the omission of the word 'systems' started with the *IK Act* (hereafter the *IK Act*).

⁷⁶ WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>. 1; "Traditional knowledge is not so-called because of its antiquity. It is a living body of knowledge that is developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity. Therefore, the current international patent system is appropriate to protect innovations".

⁷⁷ WIPO IGC Background Brief - No 1 2; "Traditional cultural expressions (folklore) are seen as integral to the cultural and social identities of indigenous and local communities, embodying know-how and skills, and transmitting core values and beliefs. Traditional cultural expressions can be protected by existing systems, such as copyright and related rights, geographical indications, trademarks and designs".

2.1.1.5 Genetic resources (GR)

WIPO's evolving, but most recent definition of GR is

Genetic resources means genetic material of actual or potential value, [where] Genetic material means any material of plant, animal, microbial or other origin containing functional units of heredity.⁷⁸

In the main, when one refers to IKS as a collective term, it comprises knowledge about the traditional use of various biological and other materials for medicinal treatments, agriculture, production processes, functional and aesthetic designs, literature, music, rituals, folklore, handicrafts, and other techniques and arts by IPLC. IKS are also said to be the intangible cultural value of a group or community such as local knowledge instead of what may be termed global knowledge.⁷⁹

With these IKS related words and terminologies now briefly contextualised one can start to delineate the public domain.

2.2 The public domain

It was mentioned earlier that one can delineate the public domain in the context of IKS from at least three perspectives, namely IP, international law instruments related to IKS, and from a human rights perspective. While all these perspectives will be scrutinised, it serves this thesis well to start with how Roman law understood the public domain.

2.2.1 Roman law and the public domain

The public domain, or *res communes et res publicae* as the Romans understood it, comprises of things that are by their nature incapable of being owned, and things that are open to the public but can be appropriated.⁸⁰ It is relatively easy to

⁷⁸ Draft text of the WIPO IGC that is to meet in 2024. The proposed definition is verbatim the GR definition of the CBD.

⁷⁹ Morris 'Indigenous knowledge systems (IKS) and the teaching of history: case studies in a museum archaeology context' <<http://www.museumsonline.co.za/aboutus/depts/archaeology/pdf/IKS.pdf> > accessed 29 August 2014.

⁸⁰ Van Der Walt and Du Bois 2013 *Stellenbosch Law Review* 32; *Res communes* refers to things that are by their nature incapable of being owned; *Res publicae* refers to things that are open to the public but can be appropriated.

conceptualise when real property is at stake. Imagine New York without Central Park; imagine Central Park without skyscrapers surrounding it. The public domain, represented by Central Park, defines the value of the privately-owned skyscrapers in Manhattan with a commanding view over Central Park.

With incorporeal property, the public domain becomes more difficult to conceptualise. Justinian understood incorporeal property as something that could not be touched or handled but could become part of the more valuable, tangible object by means of *accessio*.⁸¹ For example, the tablet on which a poem is written belongs to the owner of the tablet, even if the poem is written in gold, which is tangible and far more valuable than the tablet itself.

Jurisprudence has evolved since the Justinian era, with many developments concerning intangible property, although many questions remain unanswered. For example, who owns knowledge, or who owns human capital as incorporeal property? Or does knowledge belong to the public domain? These are fundamental questions in the knowledge age in which we are all living, an age that is also moving apace towards artificial intelligence (hereafter AI).

2.2.2 Intangible property and the public domain

Today, intangible property manifests itself in many ways other than merely as knowledge and IP, including culture, trade secrets, sacred ceremonies, or symbols that express a group's identity and for which a public domain is required.⁸² This differentiation is duly recognised by fora such as the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (hereafter WIPO-IGC)⁸³ which makes a clear distinction between TK, TCE and GR.⁸⁴ A deep understanding of the scope, nature, and legal boundaries of

⁸¹ Emmett "Roman Law, Private Property and the Public Domain: Lessons for Copyright Policy" 20; Emmet refers to Justinian's Institutes, Book II, para xxvi (*intextura*), xxxiii (*scriptura*), and xxxiv (*pictura*).

⁸² Baker 2018 *North Carolina Central University Science & Intellectual Property Law Rev* 112-113.

⁸³ WIPO IGC 2002 <http://www.wipo.int/tk/en/igc/>.; Also see WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>. 1-4.

⁸⁴ See para 2.1.1.

the public domain is essential for successful study in this field. Also, to fully appreciate the boundaries of the public domain concerning IP and IKS, knowledge or human capital must be understood from the perspectives of both developed and developing countries.

This discussion about the public domain rests on a few early assumptions. One assumption is that access to knowledge in the public domain is a crucial requirement for humankind's survival and progression with the necessary regard to TK's secret- and sacredness. Without access to knowledge and the ability to transfer knowledge, humankind would not have evolved to the point it is at today.⁸⁵ When Lessig explains his view on the public domain, he says, "resources of the public domain should be considered nonrivalrous because they are inherently inexhaustible".⁸⁶ Lessig uses a very useful example when he explains his viewpoint: Einstein's theory of relativity, ie, knowledge which is in the public domain, can be used by anyone without setting limits on anyone else to do the same.

Another assumption relates to ownership of knowledge – for example, some may argue that humankind, by nature, fiercely protects what it possesses, be it real property or knowledge created by one's intellectual effort and labour, as Locke defended in his natural law theory.⁸⁷ Therefore, knowledge seekers will always be proponents of a wider public domain where knowledge can be freely disseminated and accessed for the common good. On the other hand, knowledge proprietors will argue for a narrow public domain where the fundamental principles of ownership are entrenched. Bratspies summarises the above divide between indigenous and other knowledge systems in a single simple question: "Who owns knowledge?"⁸⁸ This hypothetical question brings to the fore that there are also other views on how the notion of ownership of knowledge should be dealt with, for example:

⁸⁵ Hublin 2017 *Max Planck Research*.

⁸⁶ See Brown *Who owns native culture?* 5, where he quotes Lawrence Lessig, the founder of the Creative Commons.

⁸⁷ Locke *Two Treatises of Government* 245-271.

⁸⁸ Bratspies 2006 *American Indian Law Review* 316.

Custodianship, guardianship, collective and/or cultural ownership, and not to forget the social embeddedness of knowledge.⁸⁹

2.2.2.1 Boyle's and other perspectives

These two opposite poles (the public domain versus private property) leave us in the predicament with which Boyle grapples. Boyle's detailed arguments concerning a Western perspective on IP rights follows below,⁹⁰ after which they are considered specifically in relation to IKS.

In Boyle's work, he discourses on the values of private property and the public domain, and points out that:

[T]hese problems [private property v the public domain] reappear in each new era, and in each new era they are dealt with by using a set of ideas about information that had their roots in a society where information bore a different relation to property and power.⁹¹

Authors such as Craig,⁹² Litman,⁹³ and Okediji⁹⁴ also grapple with the concept of the public domain. In two of her recent works, Craig approaches the public domain from a critical legal theory perspective,⁹⁵ and from a copyright limitation/exception perspective, where these limitations are seen as user rights⁹⁶ – both of which are briefly touched upon elsewhere in this thesis.⁹⁷ Her arguments centre around the legal reification of IP on the one hand, and the political construction of user rights on the other⁹⁸ – arguments that later serve to assist us in understanding the

⁸⁹ Ellen 2020 1.

⁹⁰ See paras 2.3 and 2.4.

⁹¹ Boyle *Shamans, Software, and Spleens: Law and the Construction of the Information Society* 12.

⁹² Craig "Critical Copyright Law & the Politics of IP" 4-8; Craig 2017 *Am U Int'l L Rev* 1.

⁹³ Litman 1990 *Emory L J* 966.

⁹⁴ Okediji 2018 *Centre for International Governance Innovation* 10.

⁹⁵ Craig "Critical Copyright Law & the Politics of IP" 4; Craig summarises the critical legal theory, with reference to the critical theory scholar Balkin, as follows: "First, that the theory simultaneously recognises and resists the law's reification ability; second, that legal rhetoric mystifies and legitimizes the operation of the law; third, the law's inherent indeterminacy; and fourth, the theory's claim that the law is political and complicit in the perpetuation of privilege, subordination and injustice".

⁹⁶ Craig 2017 *Am U Int'l L Rev* 1.

⁹⁷ See para 2.4.1.

⁹⁸ User rights is explained in the latter parts of this paragraph.

underlying legal question of this thesis concerning IKS versus public domain, namely, what are the appropriate legal instruments for protecting Indigenous Knowledge Systems in South Africa without endangering the public domain?

2.2.2.2 User rights perspectives

At this point it is also prudent to clarify user rights. Some scholars, such as Craig, refer to user rights as a political tool in cases where the public domain for certain works is demarcated, eg, digital copyright works. For example, in copyright works, fair dealing and other copyright exceptions and limitations are seen as 'user rights' by legal scholars.⁹⁹

In her book, Craig suggests that only critical legal theories have "the transformative and emancipatory potential"¹⁰⁰ needed to develop IP law, which in her view essentially has a "power-legitimising"¹⁰¹ logic. She states, with reference to Litman, that:

The gulf between the actual processes of authorship and the law's construction of human creativity would render the copyright system unworkable were it not for the construct of the public domain which protects the copyright system by freeing it from the burden of deciding questions of ownership that it has no capacity to answer.¹⁰²

Continuing, she criticises copyright as hiding behind the property facade, where copyright is used to protect privilege and the political power structures which it perpetuates to the detriment of the public domain. She aims to understand copyright law's core constructs and the public domain which she considers to be "the unowned intellectual commons on which all are free to draw".¹⁰³ This so-called 'unowned intellectual commons' is, in terms of IKS, of vital importance as IKS do

⁹⁹ Craig 2017 *Am U Int'l L Rev* 23; Craig says that "the adoption of the language of 'user rights' [by the Canadian courts] is arguably the most striking manifestation of the inclusion of the public as a primary beneficiary of the [digital] copyright system whose interests therefore factor directly into the copyright 'balance.'"; Other scholars that prefer 'user rights' are Li, Pistorius and Sun.

¹⁰⁰ Craig "Critical Copyright Law & the Politics of IP" 4.

¹⁰¹ Craig "Critical Copyright Law & the Politics of IP" 4.

¹⁰² Craig "Critical Copyright Law & the Politics of IP" 14.

¹⁰³ Craig "Critical Copyright Law & the Politics of IP" 13.

not necessarily promote a public domain on which all are free to draw, as Craig suggests.

As a critical legal scholar, Craig refers to cases from the USA and Canadian courts on the later development of the fair use doctrine and criticises the courts for being "uncharacteristically keen, in such [court] cases, to earn their pedigree as resolute defenders of the public domain".¹⁰⁴ For her:

[I]t should be clear that a decision to privilege the public side of the public/private binary and so to allow free use of a work is no less political than a decision to stringently enforce copyright and so to protect the private rights of IP owners.¹⁰⁵

In her concluding remarks, and using her critical theory lens, she embraces the discourse on user rights as a political tool to restrain copyright and advance the public interest – "it is clear to see that IP law now resides in a cultural battleground of hegemony, social dominance, and resistance",¹⁰⁶ which brings us to IKS and more specifically, TK versus user rights. In this regard, Craig refers to two influential IKS scholars and activists, Okediji and Boateng, who suggest that the public domain is a rhetorical tool used by Western countries to justify "the misappropriation of traditional knowledge and cultural resources".¹⁰⁷ This statement of Okediji and Boateng may be problematic since the public domain could also be broadened, and user rights liberated using appropriate legal instruments, and not necessarily constrained by the politicised binaries of private ownership of IP (eg, copyright) versus the public domain (or user rights in Craig's context).¹⁰⁸

Craig¹⁰⁹ later draws strongly on developments in Canada¹¹⁰ where the courts have repeatedly affirmed that fair dealing and other copyright exceptions and limitations

¹⁰⁴ Craig "Critical Copyright Law & the Politics of IP" 15; Both the *Selden* case (USA) and the *Deeks* case (UK Privy Council) are discussed in para 2.5.

¹⁰⁵ Craig "Critical Copyright Law & the Politics of IP" 17.

¹⁰⁶ Craig "Critical Copyright Law & the Politics of IP" 30.

¹⁰⁷ Craig "Critical Copyright Law & the Politics of IP" 21.

¹⁰⁸ Craig "Critical Copyright Law & the Politics of IP" 22.

¹⁰⁹ Craig 2017 *Am U Int'l L Rev* 1.

¹¹⁰ Note that Canada, as a Commonwealth country in North America, with strong UK, USA and French ties, and with civil and common law influences, is influential in international policy making on fair dealing and fair use in the digital era. In the chapter on other legal systems, Canada was not selected because it does not have a rich IKS tradition. The notion of user rights

are evolving into user rights and must be interpreted as such. For example, in the Canadian *Théberge* case, the court said that:

[C]opyright is not primarily for the benefit of authors but is rather a balance between promoting the public interest in the encouragement and dissemination of works of the arts and intellect and obtaining a just reward for the creator.¹¹¹

Although copyright exceptions and limitations and the associated user rights are not the main focus of this dissertation, the relevance of Craig's notion of user rights in respect of IKS is of extreme importance as user rights can potentially be a "double-edged sword...that should be wielded carefully if public interest advocates are to avoid a self-inflicted injury".¹¹² The double-edged metaphor is equally compelling in the context of IPLCs' claims: with the one edge the public domain, and the other, how user rights are broadening the public domain.

2.2.2.3 Digital perspectives

Boyle and Craig's works, both dated after Litman's article,¹¹³ clearly have an appreciation for the public domain in the digital age in which we live. Litman's work is helpful from an IKS perspective, as she reverts to the fundamentals of private property rights when she deals with the copyright system. She argues that copyright law, in particular, "purports to define the nature and scope of the property rights that it confers by relying on the concept of originality"¹¹⁴ – a concept which for her is an apparition. Apparition is an appropriate term in the IKS context as originality is often impossible to prove, notably because of the presence of ancestors' original works.¹¹⁵ Litman argues that if originality is indeed a requirement for copyright, the law will not grant

in Canada is, however, of extreme importance when reference is made to IKS throughout this thesis.

¹¹¹ *Théberge v Galerie d'Art du Petit Champlain Inc (Can)* [2002] 2 SCR 336 at 355 (hereafter the *Théberge* case).

¹¹² Craig 2017 *Am U Int'l L Rev* 9.

¹¹³ Litman 1990 *Emory L J* 965.

¹¹⁴ Litman 1990 *Emory L J* 1023.

¹¹⁵ Boateng 2013 *Law & Society Review* 961; Also see para 2.4.3 where Boateng's arguments are further discussed. Also see how Verhoef sees the importance of ancestors' role as mediators in Verhoef *Die rol van die bonatuurlike (wonders, tekens en kragte) in die lewe van lidmate van die NG Kerk in Afrika, Cala-Gemeente, Transkei* 131.

authors copyright rights without first dissecting their creative process to pare elements adapted from the works of others from the later authors' recasting of them. That dissection would be both impossible and unwelcome.¹¹⁶

Litman says that the "public domain rescues us from this dilemma"¹¹⁷ since the public domain is the "public's toll for conferring private property rights in works of authorship".¹¹⁸ The dilemma of IP rights relative to real property rights is that real property has concrete boundaries that enable the legal system to define possession and ownership and to define the public domain, as in, for example, a recreational park or any other public space with clearly defined visible boundaries. By transposing her argument regarding the copyright system to IKS, the question is how IPLC retrieve original ancestral knowledge in cases in which, to use one example, they insist on the oral handover of their original folklore, which can in some way be seen as the community acting as the proverbial boundary.

Okediji appreciates that multiple public domains already exist and that the public domain is constituted differently for the patent, copyright, and trademark regimes. In this regard, she differentiates these IP regimes as follows: Patents have limitations on the patentable subject matter to address broader moral considerations, innovation, and developmental goals of countries; the public domain for copyright serves as the prohibition of the protection of ideas or facts or government works in order to broaden the public domain for the sake of innovation and creativity; trademarks serve as the representation of a source or distinctiveness, and arguably have the narrowest public domain.¹¹⁹

Okediji appreciates that there is no international public domain (or international instrument that requires compliance with any aspect related to the public domain) and that the public domain can, therefore, be an important policy tool for national governments to defend national rights in IKS, namely territoriality.

With these two insights in mind, she warns that proponents of a *sui generis*

¹¹⁶ Litman 1990 *Emory L J* 1023.

¹¹⁷ Litman 1990 *Emory L J* 1023.

¹¹⁸ Litman 1990 *Emory L J* 967.

¹¹⁹ Okediji 2018 *Centre for International Governance Innovation* 5-7.

approach to IKS must also recognise the

history of unauthorised access, use and uncompensated appropriation of property belonging to Indigenous and minority groups, dating back to the so-called age of discovery, underlie justifications for the entitlement-like claims sought by such groups in international fora.¹²⁰

She points out that international fora such as the WIPO-IGC¹²¹ already question whether IKS are not inherently part of the global public domain, leading to the next question of whether IKS produced by IPLC are entitled to IP protection in the first instance. She proposes that in order to obtain a better understanding of this dilemma, one needs to address the features of the conventional understanding of the public domain that pose challenges for the protection of IKS. These are, according to Okediji:

The public domain comprises intellectual resources that are free for all to use and to build upon.

The public domain is free because IP rights expire at some point in time.

Indigenous peoples seek continued cultural and spiritual identity with IKS that enter the global marketplace.

The public domain is inherently there to protect the basis of future innovation and creativity by allowing intellectual resources to be used as building blocks of innovation and creativity.¹²²

It is because of these four challenges that Okediji is a proponent of a custom-built public domain for IKS. Although in her view a *sui generis* approach might not be ideal for IKS, she still remarks that such a model is indeed possible in light of: i) many manifestations of IKS already satisfying conventional IP regimes; and ii) IKS can indeed be tied to real property (ie, the finite resource, land).¹²³

Another IKS scholar, Nwauche, points out that IPLCs' perspectives on the ownership of TCE versus the public domain cannot be ignored,¹²⁴ inter alia, because the *Constitution* protects all South African citizens' right to join, participate, maintain,

¹²⁰ Okediji 2018 *Centre for International Governance Innovation* 3.

¹²¹ WIPO IGC 2002 <http://www.wipo.int/tk/en/igc/>.

¹²² Okediji 2018 *Centre for International Governance Innovation* 11.

¹²³ Okediji 2018 *Centre for International Governance Innovation* 12.

¹²⁴ Nwauche 2010 *PER/PELJ* 71.

and practise the cultural life of their choice.¹²⁵ He then strongly draws on the *DRIP*s entrenchment of cultures¹²⁶ when he argues that IPLC have the right to culture as a way of life and an underlying pattern of thought. His supportive remarks about the minority judgment in the *Pillay* case, where the judges found that the correct way to approach culture is "an understanding of what the cultural community considers to be a cultural practice",¹²⁷ as opposed to beliefs held by an individual requires further investigation. The main reason for this early concern about culture (and cultural appropriation),¹²⁸ is the legal problems that will be created if culture is recognised as a legal object and IPLC are recognised as juristic persons – an issue already raised by Raath.¹²⁹ Heller and Salzman gave some insights on cultural appropriation when they argue that such appropriation stems from attachment principle pertaining to property, but this for later and after the public domain in relation to international law instruments are discussed in the paragraph to follow.¹³⁰

2.3 The public domain, IKS and international law instruments

International agreements on IP typically regulate relations between parties by following two principles: national treatment and reciprocity.¹³¹ The principle of territoriality¹³² concerning ownership of IP, and the importance of international agreements that establish standards and common understandings on an international level¹³³ are also important considerations in this thesis.

The *Berne Convention* and other international law instruments, although they aim to address the IP-related rights and economic emancipation of knowledge owners, rightsholders, and custodians, fall short of meeting the aspirations and expectations

¹²⁵ Sections 30 and 31 of the *Constitution*.

¹²⁶ Articles 11 and 31 of the *DRIP (2007)*.

¹²⁷ *MEC for Education, KwaZulu-Natal v Pillay* 2008 (1) SA 474 (CC) para 154 (hereafter *Pillay* case); Also see para 5.3 where this case is discussed.

¹²⁸ Note that Cultural appropriation is dealt with in para 4.4.6.

¹²⁹ Raath and Brits 2019 *THRHR* 121.

¹³⁰ Heller and Salzman *Mine! : how the hidden rules of ownership control our lives* 129, 153.

¹³¹ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 13.

¹³² Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 12; Note that IP rights are only effective and enforceable in the country where such rights are registered.

¹³³ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 14.

of IPLC.¹³⁴ Furthermore, historically unregulated bio-prospecting¹³⁵ activities led to biopiracy¹³⁶ which resulted in no, or at best an unfair and inequitable, sharing of benefits arising from bio-prospecting, the unsustainable use of IKS, and poor management and conservation of the IKS targeted.¹³⁷ As a result many international law instruments were developed over the last decades which contributed to the discourse on IKS and IP.

WIPO is the most prominent international organisation concerning IKS. Among other initiatives, it has established the WIPO-IGC, influenced the discourse on four WIPO treaties,¹³⁸ and generated many position papers on IKS.¹³⁹ To give but one example: According to *Background Brief 2* of the WIPO-IGC,¹⁴⁰ the *Performances and Phonograms Treaty* (hereafter *WPPT*)¹⁴¹ has succeeded in providing for the protection of the rights of performers of expressions of folklore. Many countries are responding to the WIPO-IGC's initiatives¹⁴² by putting in place legislation that protects the rights and interests of IKS in their respective countries.¹⁴³

¹³⁴ See para 3.2.

¹³⁵ Biodiversity means any research on, or development or application of, indigenous biological resources for commercial or industrial exploitation, and includes: (a) the systematic search, collection or gathering of such resources or making extractions from such resources for purposes of such research, development or application; (b) the utilisation for purposes of such research or development of any information regarding any traditional uses of indigenous biological resources by indigenous communities; or (c) research on, or the application, development or modification of, any such traditional uses, for commercial or industrial exploitation." S 1(1) of the *Biodiversity Act*.

¹³⁶ Biopiracy is the theft of genetic resources by bio-prospectors operating without prior informed consent; Also see the glossary (Annexure A).

¹³⁷ Section 2 of the *Biodiversity Act*.

¹³⁸ See Chapter 2 for a comprehensive discussion of the four WIPO treaties, namely the *WCT*, the *WPPT*, the *Beijing Treaty* and the *PCT*; WIPO also administrates many other treaties, such as the *Berne Convention*.

¹³⁹ WIPO 'Traditional knowledge' <<http://www.wipo.int/tk/en/tk/>> accessed 6 March 2018; WIPO refers to IKS as three separate terms, namely TK, "a living body of knowledge passed on from generation to generation within a community ... that often forms part of a people's cultural and spiritual identity", GR and TCE.

¹⁴⁰ WIPO IGC Background Brief - No 2 1.

¹⁴¹ Article 2(a) of the *Performances and Phonograms Treaty* (1996).

¹⁴² The WIPO IGC 2002 <http://www.wipo.int/tk/en/igc/>. influenced, among other, the *WCT*, the *WPPT*, the *Beijing Treaty on Audiovisual Performances* and the *PCT*.

¹⁴³ WIPO 1967 <http://www.wipo.int/portal/en/> . Note that so far only 96 Countries acceded to or ratified the *WPPT*.

The *Budapest Treaty* (1977)¹⁴⁴ is another example where the public domain, IKS and IP are aligned. In essence, this treaty compels member states to enforce the deposit¹⁴⁵ of micro-organisms with a recognised depository institution before a patent with any claims regarding the underlying micro-organism for which the patent is sought may be granted. In South Africa, for example, the *Biodiversity Act*,¹⁴⁶ which is aligned with the *Budapest Treaty* (1997), provides a framework for how IKS may be used. In Chapter 3 these and other instruments will be analysed in more depth.

2.4 The public domain, IKS and intellectual property rights

In many cases, the public domain, IKS and IP cannot be reconciled, mainly because of the different philosophical and normative views on the private ownership of property on the one hand, and the intersectionality of tangible and intangible interests in traditional ownership of IKS on the other.¹⁴⁷ The fundamental legal properties and differences between IP and IKS, therefore, require some explanation. This part of the thesis aims to do so by touching briefly on the underlying ownership principles in respect of IP and IKS in order to set the scene for the chapters that follow. Patents, trademarks, and copyright – three *genera* of IP, each with a distinct public domain,¹⁴⁸ are also briefly considered at the end of this section to further contextualise the differences between individual and traditional ownership of property.

2.4.1 Ownership of Intellectual Property

Private ownership of property is entrenched as a human right in article 17 of the United Nations' Universal Declaration on Human Rights (hereafter *UDHR*).¹⁴⁹

¹⁴⁴ Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (1977).

¹⁴⁵ Article 3(1)(a) of the *Budapest Treaty* (1977).

¹⁴⁶ *Biodiversity Act*.

¹⁴⁷ Bratspies 2006 *American Indian Law Review* 316.

¹⁴⁸ Okediji 2018 *Centre for International Governance Innovation* 1.

¹⁴⁹ Article 17 of United Nations' Universal Declaration on Human Rights (1948). "A 17(1) Everyone has the right to own property alone as well as in association with others. (2) No one shall be arbitrarily deprived of his property".

However, IP and the ownership of IP are not expressly recognised as genus of 'property' or expressly mentioned and/or defined in international law instruments. For example, the specific term 'intellectual property' is not used in the *UDHR*, but article 27(2) of the *UDHR* provides for the protection of the material interests resulting from creations of the mind.¹⁵⁰ It is, therefore, necessary to start at the *Berne* and *Paris Conventions*¹⁵¹ to understand how intangible property was perceived by Hugo, Jefferson, and others.

A quick review of these two international law instruments reveals that only "literary and artistic works"¹⁵² are defined, and that none of the terms such as 'intellectual property', 'copyright', or 'industrial property' is defined. It is only in the more modern instruments, such as the *Trade-Related Aspects of Intellectual Property Rights Agreement* (hereafter *TRIPS Agreement*),¹⁵³ that ownership of intangible property, and specifically of IP, is recognised as a private property right.¹⁵⁴ A normative approach to ascertain the scope of 'property' in IP is therefore not always appropriate.

Martin-Bariteau questions the word 'property' in IP rights.¹⁵⁵ He points out that IP benefits the owner by seeking to ensure a balance of interests between exclusivity and public interest, for the "copyright holder's dominion is subjected to precisely defined limits", as opposed to real property which can be owned and includes the right to exclude others. Craig approaches IP from the perspective of critical legal theory, and asks "whether, how, and to what extent the creation of private rights over the intangible products of human creativity actually benefits society?"¹⁵⁶ These are merely two examples which illustrate the complexities of IP.

¹⁵⁰ Article 27(2) of *UDHR* (1948). "Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author".

¹⁵¹ See paras 3.2 and 3.3.

¹⁵² Article 2(1) of the Convention for the Protection of Literary and Artistic Works WIPO Lex TRT/BERNE/001 (1886).

¹⁵³ Agreement on Trade-Related Aspects of Intellectual Property Rights Annex 1C to the WTO Agreement (1994).

¹⁵⁴ Preamble of the *TRIPS Agreement* (1994) 2. "Recognizing that intellectual property rights are private rights".

¹⁵⁵ Martin-Bariteau 2019 *UBC L Rev* 1-3.

¹⁵⁶ Craig "Critical Copyright Law & the Politics of IP" 7.

But in considering South Africa, we can for now stick with a normative approach. Section 25 of the *Constitution* protects private ownership of property from arbitrary interference by the State, which is in line with article 17 of the *UDHR*. The Constitutional status of IP as intangible private property has also been confirmed in the *FNB* and *Moneyweb* cases where section 25 of the *Constitution* was considered.¹⁵⁷ Van Der Walt and Shay comment on the "property clause [that] can be a guiding force in ensuring that intellectual property interests are given due regard [by the Constitutional Court]".¹⁵⁸ For now it suffices that IP rights, which are intangible, are very similar to any other tangible private property rights and their private ownership as they allow the owner certain tangible benefits. For example, IP allows the owner or creator of creations of the mind (innovations and creativity in many forms) tangible benefits which typically include statutory patent, trademark, or copyright protection,¹⁵⁹ and protects the material interests resulting from creations of the mind.

2.4.2 Property in Indigenous Knowledge Systems

As mentioned earlier, IKS is the collective reference to GR, TK and TCE. The ownership of GR is directly linked to ownership of the land on which the GR are present, while TK and TCE require a creation-of-the-mind component to establish ownership. The ownership of IKS can, therefore, not be addressed without also considering the ownership issues surrounding the respective sub-categories of IKS.

Munzer and Raustiala follow this differentiated approach to justify ownership in IKS. They start by referring to the biopiracy and plunder of genetic resources, which assumes that what was allegedly pirated or plundered is property.¹⁶⁰ This assumption requires legal justification and so they proceed to investigate moral,

¹⁵⁷ *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services* 2002 (4) SA 768 (CC) para 46 (hereafter the *FNB* case); This matter is more comprehensively discussed in para 5.4.2; Also see the *Moneyweb (Pty) Ltd v Media 24 Ltd and Another* 2016 ZAGPJHC 81 para 108 (hereafter the *Moneyweb* case), where copyright was confirmed as property in terms of s 25 of the *Constitution*.

¹⁵⁸ Van Der Walt and Shay 2014 *PER/PELJ* 78; Also see para 5.4.2.

¹⁵⁹ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 12.

¹⁶⁰ Munzer and Raustiala 2009 *Cardozo Arts & Ent L J* 39, 95.

political, distributive justice, human rights, IP paradigms, and legal arguments to justify IKS as property. They also call on Hohfeld's quartet of claim-rights, liberty-rights (privileges), powers, and immunities, together with their correlatives and opposites.¹⁶¹ If one fast-forwards their rational analysis of IKS as property, they find that the

defensive protection [of IKS by means of the existing IP regime] is justifiable; offensive protection secured through the adept use of existing categories of IP is largely justifiable; but other efforts to obtain IP protection for TK cannot usually be justified by property arguments.¹⁶²

The moral rights of the community is an example. These arguments resonate well with this thesis's general approach to using the existing international IP regime as a normative approach towards IKS.

Munzer and Raustiala also recognise that things can be in the public domain in some respects and outside it in others. They comment that *domaine public payant* is a good example where the conditions upon entry into the public domain can vary, often dictated by the *droit moral*¹⁶³ of authors. However, they then caution against *domaine public payant* being pressed into service by ill-advised legislators to protect IKS.¹⁶⁴ Briefly, then, IKS tests the boundaries of the public domain, be it from an ownership, *droit moral*, *domaine public payant*, or a cultural appropriation perspective.

Bratspies also raises questions regarding IKS ownership – bear in mind that Bratspies uses the term indigenous biological resources (hereafter IBR – as also

¹⁶¹ Munzer and Raustiala 2009 *Cardozo Arts & Ent L J* 43.

¹⁶² Munzer and Raustiala 2009 *Cardozo Arts & Ent L J* 80-81.

¹⁶³ *Droit Moral* is the French word for moral rights. It protects artistic integrity.

¹⁶⁴ Munzer and Raustiala 2009 *Cardozo Arts & Ent L J* 90; The authors refer to a Peruvian statute, which reads as follows: "The statute contains a provision for TK that has passed from an indigenous people to the wider public. The statute applies, inter alia, to cases in which an item of 'collective knowledge' has been made accessible to persons other than the indigenous peoples by mass communication media such as publication or, when the properties, uses or characteristics of a biological resource are concerned, where it has become extensively known outside the confines of the indigenous peoples and communities. If the collective knowledge has passed into the public domain within the previous 20 years, a percentage of the gross sales of goods developed from the TK goes into the Fund for the Development of Indigenous Peoples".

used by South African legislators), which is similar to GR, the preferred term in this thesis. Bratspies asks:

Firstly, are indigenous biological resources in question ownable at all?

Secondly, who owns knowledge?¹⁶⁵

These two questions form a golden thread throughout this thesis, or to use the words of Bratspies:

Indigenous biological resources, particularly when accompanied by traditional knowledge, is (sic) the gold mine of [the] twentieth century and like (sic) with conventional gold rushes, the importance of ownership is of utmost importance.¹⁶⁶

Concerning the first question, Bratspies continues to argue that ownership of IBR can be approached from three perspectives: private ownership of natural resources; state ownership of natural resources; or the ownership of the land and the related sovereignty of the state over land/territory where these natural resources are found. Bratspies' three proposed perspectives correlate with article 15 of the *CBD* which provides that jurisdiction over IBR vests in the respective member states.

Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.¹⁶⁷

On these three perspectives of ownership of IBR, Bratspies also correctly points out that most of the world's IBRs exist within indigenous lands/territories, when she says:

[I]ndigenous leaders conceive of these [IBR] resources as an aspect of self-determination – as a recognition of their fundamental rights to property and culture.¹⁶⁸

This paragraph does not attempt to exhaust the complex relationship between the public domain, GR and ownership of land. For the present it should be noted that there is a need to analyse the matter carefully within the context of how IPLC perceive ownership of land, while considering the effect that colonialism has had on

¹⁶⁵ Bratspies 2006 *American Indian Law Review* 316.

¹⁶⁶ Bratspies 2006 *American Indian Law Review* 316.

¹⁶⁷ Article 15 of the *CBD* (1992).

¹⁶⁸ Bratspies 2006 *American Indian Law Review* 317.

South Africa – the exploitations which inevitably swirl beneath the surface – against the backdrop of globalisation and the sovereignty of states. The ownership of IKS and land is later approached from a Constitutional perspective.¹⁶⁹

Concerning Bratspies's second question on the ownership of knowledge (ie, ownership of TK and TCE), ownership challenges are becoming increasingly complex because of their intangible nature. She remarks that:

[K]nowledge is generally not considered property and its non-proprietary characteristics serve as an important social function facilitating the advancement of knowledge, technology and the standard of living in society.¹⁷⁰

She is correct, because TK and TCE need to be codified and protected in a tangible form before private property rights – as the Western world conceives of property – can arise. Du Bois attempts to resolve this impasse when she applies different property theories to IP, and then extrapolates the arguments to TK and TCE.¹⁷¹ She situates this comparative study within the context of the *Constitution*, while also recognising the importance of the public domain. This is the correct approach.¹⁷² Du Bois's argument that TK and TCE can in many instances be justified under distributive justice of human rights needs further consideration.¹⁷³

This brings us back to the philosophical differences between the ownership of IP and IKS, as mentioned in the introductory paragraph above.¹⁷⁴ To put this matter on ownership of knowledge within a public domain into further perspective, attention is called to the three *genera* of IP, namely copyright, patents, and trademarks.

¹⁶⁹ See para 5.4.

¹⁷⁰ Bratspies 2006 *American Indian Law Review* 337.

¹⁷¹ Note that these theories are the labour theory, the reward theory, the incentive theory, the theory of natural law, spiritual theories, personality theory, economic theory, and the theory of natural monopoly.

¹⁷² See para 5.4.

¹⁷³ Du Bois 2018 *PER/PELJ* 1, 30.

¹⁷⁴ See Chapter 3 where the respective requirements for the existence of various forms of IP rights, as prescribed by international law instruments, are discussed.

2.4.3 Copyright

In terms of the *Berne Convention* a copyright cannot be owned and enforced by its author or creator unless the work is, in the first instance, original and second, has been reduced to a tangible format.¹⁷⁵

An example of the requirement of a work that needs to be reduced to a tangible format is music, which can be the musical score or recording using means such as the old magnetic tapes, an electronic sound clip, or any other suitable analogue or digital format, failing which countries worldwide will not recognise the author's rights.

The tangible format requirement is important. Boyle goes back to the romantic vision of authorship and, citing Fichte, Goethe, Locke, and Marx, convincingly explains why copyright does not protect ideas but only the tangible expression of ideas.¹⁷⁶ He points to four aspects that copyright scholars grappling with this issue consider:

The property right still appears to be based on something real.

A moral and philosophical justification for fencing in the commons, giving the author property in something built from the resources of the public domain.

The idea/expression-division circumscribes the ambit of a labour theory of property.

The idea/expression-division resolves (or at least conceals) the tension between public and private.¹⁷⁷

Thus, the combination of the romantic vision of authorship and the distinction between idea and expression appears to offer a conceptual basis and a moral justification for IP rights. This it does in a way which does not threaten to spread

¹⁷⁵ Article 2(2) of *Berne Convention (1886)*. "It shall, however, be a matter for legislation in the countries of the Union to prescribe that works in general or any specified categories of works shall not be protected unless they have been fixed in some material form".

¹⁷⁶ Boyle *Shamans, Software, and Spleens* 55.

¹⁷⁷ Boyle *Shamans, Software, and Spleens* 56-58.

dangerous notions of entitlement to other kinds of workers, and to mediate the tension between the schizophrenic halves of the liberal world view.¹⁷⁸

Boyle's arguments as to why ideas cannot be protected by IP rights increases in complexity when ideas regarding IKS are considered, mainly because IPLC claim ownership of those ideas. IKS proponents will have to deal with this notion of idea/expression and authorship, because, as is supported in this thesis, Boyle is correct when he says that the idea (and the facts in the public domain on which the idea is based) become part of the public domain when the authors express it in a tangible format (usually a book), with the book becoming the property of the author. This approach "apparently mediat[es] the contradiction between public good and private need (or greed)".¹⁷⁹

Concerning the copyright requirement of originality, Boateng¹⁸⁰ makes a very interesting argument on time and culture. Her argument is, at first sight, disturbing in the sense that the notion of time as normative is completely irrelevant. On closer consideration one needs to pause for a while better to understand her train of thought. After extensive fieldwork she quotes a Ghanaian proverb – "the tongue does not rot"¹⁸¹ – to contextualise time from an IP and IKS perspective. IP, on the one hand, sharply delineates the periods of protection of creations of the mind to ensure that the new creator of a work is duly recognised without impinging on earlier creators' original works.¹⁸² IKS, on the other hand, denotes a conception of time within which the distinction between past and present is fluid – a conception which allows creators to acknowledge their debt to their ancestors (previous creators).¹⁸³ From the perspective adopted in this thesis, there is no fundamental difference between these two approaches in the sense that both IP and IKS acknowledge earlier creations of the mind. In other words, the cultural debt that TK holders have towards their ancestors could be seen as the equivalent Western

¹⁷⁸ Boyle *Shamans, Software, and Spleens* 58.

¹⁷⁹ Boyle *Shamans, Software, and Spleens* 58.

¹⁸⁰ Boateng 2013 *Law & Society Review* 961.

¹⁸¹ Boateng 2013 *Law & Society Review* 964.

¹⁸² Boateng 2013 *Law & Society Review* 961.

¹⁸³ Boateng 2013 *Law & Society Review* 959.

practice of citing earlier authors in new publications, which allows for the claims of individual originality that are important for IP protection.¹⁸⁴

Munzer and Raustiala also appreciate the complexities of the copyright requirement of fixing in a tangible medium of expression in the case of TCE. Apart from using these measures, they criticise countries like Ghana which impose an indefinite life for copyrights in folklore as an additional, and in their view objectionable, measure, saying that it is out of place to regard "an indigenous group as a corporate author unbound by a publication or expiry date".¹⁸⁵

Litman also raises fundamental concerns regarding copyright as the authors/creative artists, who are the rightful owners of the original work, in many (most) instances transfer ownership to publishers, record labels, and motion picture studios, and then "lack the bargaining power to exercise the rights theoretically afforded to them by current law".¹⁸⁶ She says that by "throwing more copyright rights at copyright owners"¹⁸⁷ one will not make life better for creators – a point that is also true for creators of TK and TCE.

2.4.4 Patents

The *Paris Convention* (1883)¹⁸⁸ applies to industrial property in its widest sense, including patents – note the use of the term industrial property in the *Paris Convention*, to the exclusion of IP. As a signatory, South Africa's *Patents Act*¹⁸⁹ complies with this treaty. Without running ahead of the more comprehensive discussion on the South African patent regime within the context of the public domain,¹⁹⁰ it might be useful to illustrate the complexities of applying Western patent

¹⁸⁴ Boateng 2013 *Law & Society Review* 962.

¹⁸⁵ Munzer and Raustiala 2009 *Cardozo Arts & Ent L J* 86.

¹⁸⁶ Litman 2018 *The Cambridge Law Journal* 557.

¹⁸⁷ Litman 2018 *The Cambridge Law Journal* 556.

¹⁸⁸ Convention for the Protection of Industrial Property (1883).

¹⁸⁹ *Patents Act* 57 of 1978.

¹⁹⁰ See para 5.9.

paradigms to IKS scenarios and the associate public domain by means of two case studies.¹⁹¹

2.4.4.1 Case study: Khoisan, South Africa

This case study is derived from an examination question set for senior students on IKS when the *Biodiversity Act*¹⁹² was promulgated in 2004.

Question: Discuss the Khoisan peoples' alleged IP rights in respect of the medicinal properties of the buchu plant (*Agathosma betulina*) after the promulgation of the *Biodiversity Act*. Assume that they started to sell the plant extracts to Jan van Riebeeck and his staff soon after the Dutch proclaimed South Africa as a colony of the Netherlands in 1652, and that big pharmaceutical companies are now exporting the buchu plant extract, of which the active compound has been identified, to Europe.

Hypothetical answer to illustrate the complexities:

1) In terms of current worldwide patent laws, the content of most IKS is not protected as it is regarded as a discovery¹⁹³ of something that is in the public domain and not an invention.¹⁹⁴ The Khoisan people sold the buchu extract after they discovered the medicinal properties, without being able to identify the active compound that contains the medicinal properties, scientifically. Therefore, the inventive-step requirement has not been met, and no patent can be granted.

2) In terms of current worldwide patent laws, the inventor, who must be a natural person, must be identified. In this case the Khoisan people claimed ownership as a

¹⁹¹ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 2.

¹⁹² *Biodiversity Act*.

¹⁹³ Section 25(2)(a) of the *Patents Act*. "Anything which consists of (a) a discovery...shall not be an invention for the purposes of this Act." Also see Reader's Digest, *Reader's Digest Dictionary* (Reader's Digest Association South Africa 1996) 286, where a discovery is defined as "to find unexpectedly"; This distinction between a discovery and an invention is extremely important for the purpose of this thesis, because with a discovery no intellectual contribution was made, while with an invention the human mind was applied to create new knowledge.

¹⁹⁴ Section 25(1) of the *Patents Act*. "A patent may, subject to the provisions of this section, be granted for any new invention which involves an inventive step and which is capable of being used or applied in trade or industry or agriculture".

community, which is not regarded as a juristic person, and as such are disqualified from acquiring any IP rights.

3) Should points one and two above be conceded, the Khoisan would in any event not be able to claim IP rights, because of the 'prior-art disclosure' of inventions. In other words, a patent had to be filed before trading with the Dutch commenced in 1652. The medicinal properties of the buchu plant are therefore in the public domain.

4) Should point three be conceded, the patent would have lapsed in 1672, twenty years after it had been filed, as international patent law only allows for a twenty-year monopoly. The traditional knowledge would therefore in any event reside in the public domain.

5) The land on which the buchu plants are grown is currently legally in the hands of private commercial farmers. The Khoisan people have no right to this land. At best, they can lay a complaint with the relevant authorities that the current landowners do not have research or commercial bio-prospecting permits, a requirement in the *Biodiversity Act*, but this will not help their own cause.

6) In conclusion, with reference to current IP legislation in South Africa, the Khoisan have no claim to ownership or the related benefit sharing of the IP which they claim, and the pharmaceutical companies are acting within their rights in terms of South African legislation. However, it cannot be denied that scientists' focus was directed to this plant's medicinal properties by the IPLC, which opens a whole new debate on the public domain.

Hopefully this hypothetical question and answer, together with the more concrete case study directly below, illustrate the complexities around IKS and IP that lie ahead in this thesis.

2.4.4.2 Case study: Rosy periwinkle plants and patents, Madagascar

Rosy periwinkle (*Catharanthus roseus*) is a plant of the vinca family native to Madagascar. The indigenous people of Madagascar use vinca alkaloids, the naturally

occurring active agents derived from the plant, to treat diabetes.¹⁹⁵ During the 1950s testing by pharmaceutical companies like Eli Lilly, showed that the drug had other, equally valuable uses, such as treatment of Hodgkin's disease and chemotherapy treatment, from which two powerful cancer-fighting drugs, vincristine and vinblastine, were eventually isolated, tested, and then marketed.

Three matters arose. First, although Madagascar claimed rosy periwinkle as a native species, botanists were able to prove that – "rosy periwinkle is a resolutely cosmopolitan species now cultivated on six continents and thoroughly integrated into the folk healing traditions of countries as distant from one another as England, Pakistan, Vietnam, and Dominica".¹⁹⁶ Second, the indigenous communities of Madagascar only used vinca alkaloids to treat diabetes, not cancer. Third, the cultivation of rosy periwinkle and the extraction and purification of vinca alkaloids are also undertaken by other countries, such as Turkey.

Brown then commented that:

[T]he plant's use by indigenous and peasant communities strongly suggested bioactivity, but Eli Lilly's patents drew on properties that were not part of folk knowledge. In short, this is a weak case for those who argue that the pharmaceutical industry has reaped great profits by exploiting the ethnobotanical knowledge of particular nations or ethnic communities. The history of the rosy periwinkle is typical - not as an instance of clear-cut biopiracy but as an example of how difficult it can be to disentangle proprietary claims originating in folk traditions.¹⁹⁷

The facts of this case study then forced Boyle to ask:

How, then, should we value the contribution of Madagascar's flora and indigenous medical lore? At zero? If we do, how are we to avoid public goods problems, or the tragedy of the commons problems that I discuss?"¹⁹⁸

Boyle's concerns are echoed by Okediji who appreciates that the public domain in respect of patents serves national and international innovation ecosystems, hence

¹⁹⁵ Boyle *Shamans, Software, and Spleens* 128.

¹⁹⁶ Brown *Who owns native culture?* 138.

¹⁹⁷ Brown *Who owns native culture?* 138.

¹⁹⁸ Boyle *Shamans, Software, and Spleens* 128.

a wide range of matters such as ideas and the laws of nature that are barred from patentability in many countries.¹⁹⁹

As with copyright discussed above, Munzer and Raustiala are highly critical of countries which wrongly apply the IP regime to protect IKS. Peru, for example, put in place IKS appropriation measures in recent legislation "to avoid situations where patents are granted for inventions made or developed on the basis of collective knowledge of the indigenous peoples of Peru without any account being taken of that knowledge as prior art in the examination of the novelty and inventiveness of the said inventions."²⁰⁰

2.4.5 Marks

The *Paris Convention*²⁰¹ applies to trademarks and marks. The *Lisbon System*²⁰² now also provides for a global variant – appellation of origin and the *TRIPS Agreement* for GI – that is a way of "linking certain knowledge goods with the community from which they originate".²⁰³ Okediji argues that trademark law worldwide has the narrowest public domain as exclusive proprietary rights for trademarks relate to their source-identification function, unlike other IP categories where the public domain is defined by other means, for example, statutory limitations and exceptions.²⁰⁴

Munzer and Raustiala are of the view that trademarks are not necessarily the most suitable way to protect TCE and rather support certification, collective marks, or GI which may in fact lead to "a vibrant public domain",²⁰⁵ a view that is supported in this thesis.

¹⁹⁹ Okediji 2018 *Centre for International Governance Innovation* 7.

²⁰⁰ Munzer and Raustiala 2009 *Cardozo Arts & Ent L J* 92.

²⁰¹ *Paris Convention* (1883).

²⁰² The Lisbon System comprises of the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration (1958) and the Geneva Act of the Lisbon Agreement (2015).

²⁰³ Okediji 2018 *Centre for International Governance Innovation* 5.

²⁰⁴ Okediji 2018 *Centre for International Governance Innovation* 7.

²⁰⁵ Munzer and Raustiala 2009 *Cardozo Arts & Ent L J* 89.

Trademarks deserve a more comprehensive analysis, which follows in other parts of this thesis.²⁰⁶

2.5 The public domain, IKS and human rights

2.5.1 Ownership of property as a fundamental human right

There is an underlying fear among human rights activists that is recognised in this thesis. This alleged fear relates to IP owners, such as multinational corporations, who may invoke the provisions of international law instruments to lock in maximalist IP rules that will further concentrate wealth in the hands of a few in developed countries at the expense of IPLC in the developing countries.²⁰⁷ While recognising that these fears need to be substantiated in law, the reader's attention is drawn to article 17 of the *UDHR*,²⁰⁸ which entrenches private property rights as a fundamental human right. In addition to article 17 of the *UDHR*, article 27²⁰⁹ provides for the protection of the material interests resulting from creations of the mind (IP). This being said, property, be it real or intangible, is recognised as a human right and no study on IKS can be complete without recognising this, as will become evident from authors such as Cullet, Yu, Abate, Kronk and others.

For example, Cullet²¹⁰ argues that human rights provisions, such as articles 17 and 27 of the *UDHR*, have done much more than IP instruments, such as the *TRIPS Agreement*²¹¹ to "provide a link between science, technology and human rights".²¹² Throughout the thesis the importance of this link will be emphasised, drawing on Cullet's view that first, the visible impact of IP rights on the realisation of human rights needs to be addressed by ensuring that adequate protection measures are in

²⁰⁶ See para 3.3.2 among others.

²⁰⁷ Yu "Challenges to the Development of a Human Rights Framework for Intellectual Property " 5; Yu refers to an article of Helfer and Austin, dated 2011.

²⁰⁸ See para 3.8.1.

²⁰⁹ Article 27 of the *UDHR (1948)*. "A 27(1). Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits. Article 27(2): Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author".

²¹⁰ Cullet 2007 *Hum Rts Q* 404.

²¹¹ *TRIPS Agreement (1994)*.

²¹² Cullet 2007 *Hum Rts Q* 429.

place for TK holders; and second, that the place of science and technology is better defined in the human rights instruments. In this regard he says:

Currently, most debates focus on the place of intellectual property rights in a human rights context and on the impacts of intellectual property rights on human rights. In view of the importance of science and technology in the twenty-first century, it is imperative to move beyond existing intellectual property rights when addressing the issue from a human rights perspective.²¹³

In addition to the *UDHR*, in 2007 the UN²¹⁴ released the *DRIP*.²¹⁵ According to Abate and Kronk,²¹⁶ this international instrument is the most recent standard-setting document to address IPLCs' rights and status. Of interest to this thesis is IPLCs' control over ancestral land and resources with reference to articles 25 and 26 of the *DRIP*.²¹⁷ Abate and Kronk continue to draw the reader's attention to the importance of the ownership of land and resources for IPLC, when they state that:

For indigenous peoples, land and resources are more than mere sources of economic wealth; their ability to reside communally upon their ancestral land and to operate under traditional land tenure systems is inextricably tied to the preservation of their "religion, culture and traditional modes of subsistence" [IKS].²¹⁸

For IPLC, the traditional ownership of land and resources bears both substantive and procedural rights, something that is increasingly recognised by states and the development of jurisprudence.²¹⁹ This development is important since ownership of

²¹³ Cullet 2007 *Hum Rts Q* 430.

²¹⁴ UN 1948 <http://www.un.org/en/index.html>.

²¹⁵ *DRIP (2007)*.

²¹⁶ Abate and Kronk (eds) *Climate change and indigenous knowledge* 51.

²¹⁷ Articles 25 and 26 of *DRIP (2007)*. "A 25. Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard. A 26(1): Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired. A 26(2). Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired. A 26(3). States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned".

²¹⁸ Abate and Kronk (eds) *Climate change and indigenous knowledge* 55.

²¹⁹ Abate and Kronk (eds) *Climate change and indigenous knowledge* 59.

land and natural resources cannot be separated from ownership of IP rights in the context of IKS.

2.5.2 South African Bill of Rights

The Bill of Rights in the *Constitution*²²⁰ provides for various fundamental human rights relevant to this thesis. Section 9 provides for the protection of anyone on cultural grounds.²²¹ Section 22 provides for the right to practise a profession and the right to earn income.²²² Section 24 provides for the right to an "ecologically sustainable environment".²²³ Section 25 for the right to property,²²⁴ and section 27 provides for healthcare services, a socio-economic right which imposes a positive duty on the state to do as much as it can to secure a basic set of healthcare conditions for all members of society.²²⁵ Apart from health-care, section 27 also deals with the right to sufficient food and water (and to develop new medicines).²²⁶ Section 31 provides for the protection of cultural rights.²²⁷

These human rights mentioned and directly relevant to the thesis are discussed in detail elsewhere in the work, where it will become clear that no single human right can be analysed in isolation.²²⁸ This points to the importance of the limitation and balancing of these rights, and it is to this that we now turn.

2.5.3 Limitation and balancing of human rights

The short list of fundamental human rights above has, like the other human rights, a limited dimension in the sense that human rights can be limited in terms of section 36 of the *Constitution*.²²⁹ This research project will inevitably lead to interesting debate on human rights, and although specific outcomes in this regard

²²⁰ Chapter 2 of the *Constitution*.

²²¹ Section 9 of the *Constitution*. See para 5.3.1 where this human right is discussed.

²²² Section 22 of the *Constitution*. See para 5.3.3 where this human right is discussed.

²²³ Section 24 of the *Constitution*. See para 5.3.4 where this human right is discussed.

²²⁴ Section 25 of the *Constitution*. See para 5.4 where this human right is discussed.

²²⁵ Section 27 of the *Constitution*. See para 5.3.5 where this human right is discussed.

²²⁶ See para 5.3.5.

²²⁷ Section 31 of the *Constitution*.

²²⁸ See para 5.3.

²²⁹ Section 36 of the *Constitution*.

are not planned, the opportunity will be there for the research to engage with the complexities of human rights. For example, section 22 of the *Constitution* relates directly to the exploitation of IP; section 24 can be linked to the sustainable use of IKS; while section 27 brings socio-economic aspects of both IP and IKS into play. Section 36 is used to find the legal arguments used to balance IKS and IP from a human rights' perspective.²³⁰ This will be comprehensively undertaken in Chapter 4 where IKS are analysed in relation to the *Constitution*.

With the public domain now adequately understood from international law instruments, IP and human rights perspectives, the following paragraph takes a first step towards the question of the boundaries of the public domain concerning IKS by offering an historic overview of the copyright regime.²³¹ The reason why the copyright regime has been chosen will become evident in the paragraphs that follow.

2.6 A historic overview of copyright and the public domain

In order better to understand Boyle, Craig, Okediji, and Litman's strong stances on the public domain and user rights above, one must contextualise 'each new era'. This is now undertaken using the copyright paradigm as an example. Copyright is intentionally selected for this historical overview of how the public domain, user rights, and private ownership have interacted over the last six centuries, because: i) copyright is the subject matter of one of the earliest international law instruments on IP and the public domain (the *Berne Convention*); ii) the vast majority of IKS relate to copyright; and iii) it is more convenient to deal with patents and trademarks at the end, when three intriguing French doctrines – *droit moral*, *scènes à faire*, and *Appellation d'origine contrôlée* – become relevant to the public domain and the three genera of IKS, namely TK, TCE, and GR.

2.6.1 From the Gutenberg press (1493) to the Statute of Anne (1710)

This overview starts with copyright developments *circa* 1439 when Johannes

²³⁰ See para 5.2.2 where section 36 is comprehensively discussed.

²³¹ See Annexure B, where this overview is illustrated chronologically.

Gutenberg invented the printing press,²³² and spans almost six centuries of technological advancement until we reach the current digital age in which we live. One could indeed say 'from Gutenberg to Gates', or in more technical terms, *from knowledge available in the public domain in analogue format* (Gutenberg) *to knowledge available in the public domain in digital format* (Gates).²³³ In this context Epstein notes

Gutenberg's press mechanized copying and made copyright necessary. Digitization makes copying instantaneous and viral, and renders existing laws obsolete.²³⁴

The Western world's ability since the 1500s to print books²³⁵ and reproduce multiple copies²³⁶ of copyrighted works, irrevocably informed how the Western world has attempted to balance open access, the public domain, and copyrighted works as private property.

The first copyright Act on record, the *Statute of Anne*,²³⁷ saw the light of day in 1710. It aimed "to encourage learning by vesting the copies of printed books in the authors"²³⁸ and was the first major legal advancement after the disruptive technology imposed by the Gutenberg printing press – in this regard the preamble to the *Statute of Anne* interestingly states that

whereas printers, booksellers, and other persons have of late frequently taken the liberty of printing, reprinting, and publishing, or causing to be printed, reprinted, and published, books and other writings, without the consent of the authors or

²³² Verhoef *The fair dealing doctrine in respect of digital books* 199.

²³³ Author's emphasis. Gates 2018 <https://www.gatesnotes.com/Bio.>; Bill Gates and Paul Allen started Microsoft – their vision was "a computer on every desktop and in every home".

²³⁴ Epstein 'The Future of Publishing – A Veteran's Perspective' WIPO Magazine <http://www.wipo.int/wipo_magazine/en/2011/06/article_0005.html> accessed 30 September 2015.

²³⁵ Boyle *Shamans, Software, and Spleens* 53; Boyle quotes Woodmansee's definition of a book, dating 1753. This lovely 18th century definition begs for appreciation, because an idea can never reach the public domain without the divine intervention of trade & industry, scholars, artisans and craftsmen ('an appellation which Shakespeare might not have rejected'). The quote reads as follows: "the scholar, the paper-maker, the type-founder and setter, the proof-reader, the publisher and bookbinder, sometimes even the gilder and brass worker" - all of whom are "fed by this branch of manufacture".

²³⁶ By circa 1500 more than 10 million books were produced as a result of the Gutenberg press' invention of approximately 50 years earlier.

²³⁷ *Statute of Anne (UK)* 8 Anne, c. 19 (1710).

²³⁸ Para I of the *Statue of Anne 1710*.

proprietors of such books and writings, to their very great detriment, and too often to the ruin of them and their families.²³⁹

As books continued to be easier, faster, and cheaper to print and distribute globally, it became clear that increased protection of authors and rightsholders, and uniform international copyright standards were required. This emerges clearly from many speeches and letters from renowned authors such as Hugo, Jefferson, and Macaulay.

2.6.2 Further developments until the Berne Convention (1886) was finalised

In 1841, Macaulay delivered a speech in Britain's House of Commons in justification of the extension of the copyright term:

It is good that authors should be remunerated; and the least exceptionable way of remunerating them is by a monopoly. Yet monopoly is an evil. For the sake of the good we must submit to the evil; but the evil ought not to last a day longer than is necessary for the purpose of securing the good.²⁴⁰

Spearheaded by the strong French views on the *droit moral* of creators, the *Berne Convention* was eventually finalised in 1886.²⁴¹ One of the proponents of the instrument was the French author Victor Hugo, and his speech to the International Literary Congress in 1878 on copyright and the public domain is noteworthy.

Gentlemen, let us return to the principle: respect for property. *Let us insist on literary property while at the same time fostering the public domain* (own emphasis). Let us go further. Let us broaden our scope. The law should give publishers the right to publish any book after an author's death, provided they pay a small fee to his direct heirs, not more than 5 or 10 % of net profit. This very simple system, reconciling with the author's undeniable right to property, the equally undeniable rights of the public domain, was pointed out during the Commission of 1836 by the person addressing you now.²⁴²

²³⁹ Preamble of the *Statute of Anne 1710*.

²⁴⁰ Boyle *The Public Domain* 22; A speech delivered in the house of commons on the 5th of February 1841 on Copyright.

²⁴¹ The *Berne Convention (1886)*.

²⁴² Fitzgerald and Gilchrist (eds) *Copyright Perspectives: Past, Present and Prospect* 3; Emphasis added.

In the USA, three very interesting and important court cases on the fair use doctrine²⁴³ were settled during the turbulent decades preceding the *Berne Convention* and influenced the principles of the *Berne Convention*.

The often-cited *Folsom* case²⁴⁴ of 1841, saw the beginnings of the fair use doctrine in the USA. The plaintiff (the publisher, Folsom, Wells and Thurston) had copyright in a twelve-volume work of President Washington's personal and official papers compiled and edited by a Mr Sparks. The defendant (the publisher Marsh, Capen and Lyon) copied 353 pages of President Washington's biography (the twelve volume work) verbatim.²⁴⁵ Judge Story held in connection with the verbatim copying of Washington's letters from his biography by the defendant, that fair use was indeed not present and in the judgment continued to lay down what uses of copyright-protected content might be fair. He stated:

In short, we must often, in deciding questions of this sort, look to the nature and objects of the selections made, the quantity and value of the materials used, and the degree in which the use may prejudice the sale, or diminish the profits, or supersede the objects, of the original work.²⁴⁶

Over the next century and a half the *Folsom* case, which established the recognised principles that are the foundations for the modern fair use doctrine in the USA,²⁴⁷ and introduced the notion that all uses were presumptively unfair unless found to be fair, was cited repeatedly for its discussion of fair use.

²⁴³ Note the important difference between the fair use doctrine and the fair dealing doctrine, as set out in the Glossary. Fair use is often associated with civil law countries such as the USA, while fair dealing is often associated with common law countries such as South Africa – this is not the rule.

²⁴⁴ *Folsom v Mash (USA)* 9 F Cas 342 (CCD Mass 1841) 1 (hereafter *Folsom* case).

²⁴⁵ *Folsom v Mash (USA)* 1.

²⁴⁶ Verhoef *The fair dealing doctrine in respect of digital books* 88.

²⁴⁷ 17 *US Code (USA)* 17 §107 (the USA's *Copyright Act (USA)* 1976) sets out four factors to be considered in determining whether or not a particular use is fair. These four factors are: Factor 1: the purpose and character of the use, including whether such use is of commercial nature or is for non-profit educational purposes; Factor 2: the nature of the copyrighted work; Factor 3: the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and Factor 4: the effect of the use on the potential market for, or value of, the copyrighted work.

Shortly thereafter, the *Emerson* case²⁴⁸ addressed similar public domain issues. Emerson was the author of the first (1829) and second (1835) editions of an arithmetic textbook published by Lincoln & Edmands (the plaintiffs). According to the judge the unique "method of illustration in the aggregate, each page constituting of itself a complete lesson",²⁴⁹ constituted a new work eligible for copyright and indeed a "method [that] is a real and substantial improvement upon all the works which had preceded his".²⁵⁰ In 1840, under the title *First Lessons in Arithmetic, designed for beginners*, Davies (the defendant) published a small book intended for use by beginners in the study of arithmetic. This work was so well received by the public that it began to threaten the market share of Emerson's work. The court held that there had indeed been a violation of Emerson's work by the defendant, even though Davies argued that the book "contains nothing new or original"²⁵¹ and that arithmetic is in the public domain. In this regard the court said that even though

the materials and the several particulars of his plan had existed before in separate forms and in separate works, inasmuch as they had never before been united in one combination in the same manner ... no one may at liberty to transcribe the very lessons and pages and examples and illustrations of the plaintiff.²⁵²

Of great relevance to this thesis is the very strong view adopted by the judge who commented on the public domain and user rights in the following terms:

In truth, in literature, in science and in art, there are, and can be, few, if any, things, which, in an abstract sense, are strictly new and original throughout. Every book in literature, science and art, borrows, and must necessarily borrow, and use

²⁴⁸ *Emerson v Davies et al (USA)* 13 Hunt Mer Mag 558 (CCD Mass 1845) para 620 (hereafter *Emerson case*).

²⁴⁹ *Emerson v Davies et al (USA)* para 620.

²⁵⁰ *Emerson v Davies et al (USA)* para 621; In fact, the Judge commented that if his work was of inferior quality, "his work will not be used by the community at large", a statement that serves many arguments about IKS at later stages of this thesis.

²⁵¹ *Emerson v Davies et al (USA)* para 618; The defendant argued that: "I. The plaintiff's book contains nothing new or original except the use of pictures of visible objects for unit marks. II. Illustrating lessons in arithmetic, by attaching to the example unit marks representing the numbers embraced in the example, is not the invention of the plaintiff. III. The form and appearance of the pages in the defendant's book, were not copied from the plaintiff's book, and whatever resemblance there is between them is owing to other causes. IV. The plaintiff has not stated his 'plan of lessons,' which he claims as his invention, with sufficient certainty to entitle him to relief respecting it. V. The plaintiff's plan of lessons, whatever it may be considered to be, is not new; independent of his use of pictures of sensible objects for unit marks".

²⁵² *Emerson v Davies et al (USA)* para 621.

much which was well known and used before. No man creates a new language for himself, at least if he be a wise man, in writing a book. He contents himself with the use of language already known and used and understood by others. No man writes exclusively from his own thoughts, unaided and uninstructed by the thoughts of others. The thoughts of every man are, more or less, a combination of what other men have thought and expressed, although they may be modified, exalted, or improved by his own genius or reflection. If no book could be the subject of copyright which was not new and original in the elements of which it is composed, there could be no ground for any copy-right in modern times, and we should be obliged to ascend very high, even in antiquity, to find a work entitled to such eminence.²⁵³

The judge's classic reflection on the extent of the public domain also urged Boyle to ask: "What is the extent of the fair use exception to copyright?" and "How far does the public domain extend and how are we to conceive of it?",²⁵⁴ both questions that this thesis aims to answer. In fact, Boyle goes so far as to say that copyright is not a trivial matter – "copyright (indeed IP rights in general) forces us to confront the fact that property rights are not absolute"²⁵⁵ – and therefore scholars, judges, policy-makers, and lawyers revert to first principles when they deal with the limitations and exceptions in the copyright discourse.²⁵⁶ The other genus of IP, patents, stands metaphorically on the shoulders of giants.²⁵⁷

In 1879, in the *Selden* case,²⁵⁸ with very similar facts to the *Emerson* case, Selden published an accounting textbook entitled *Selden's Condensed Ledger* which explained a peculiar system of bookkeeping. According to the judgment, based on the 1831 copyright law in force in the USA at the time, only books, maps, charts, musical compositions, prints, and engravings were entitled to copyright protection. The court also defined the public domain to some extent, saying that:

²⁵³ *Emerson v Davies et al (USA)* para 618.

²⁵⁴ Boyle *Shamans, Software, and Spleens* 18.

²⁵⁵ Boyle *Shamans, Software, and Spleens* 19.

²⁵⁶ Boyle *Shamans, Software, and Spleens* 19.

²⁵⁷ Boyle *Shamans, Software, and Spleens* 19; Patents, a genus of IP rights, are more comprehensively discussed elsewhere in this thesis. For now, it suffices to quote Boyle where he critically comments about patents, where the answer to his hypothetical question "It is as if the building of every bridge required us to derive Newtonian physics from the ground up?" is arguably no.

²⁵⁸ *Baker v Selden (USA)* 101 US 99 (1879) (hereafter *Selden* case).

Where the truths of a science or the methods of an art are the common property of the whole world, any author has the right to express the one, or explain and use the other, in his own way.²⁵⁹

The court proceeded to rule against the widow (the plaintiff) of the deceased accountant (Selden), saying that:

[A]n account-book, consisting of ruled lines and blank columns, cannot be called by any of these names unless by that of a book. The description of the art in a book, though entitled to the benefit of copyright, lays no foundation for an exclusive claim to the art itself. The object of the one is explanation; the object of the other is use. The former may be secured by copyright. The latter can only be secured, if it can be secured at all, by letters-patent. By publishing the book, without getting a patent for the art, the latter is given to the public.²⁶⁰

Of interest here are the two courts' different approaches to the public domain when faced with similar subject matter, namely, textbooks for educational purposes (arithmetic and accounting). In the *Emerson* case private rights were protected against the public domain, while in the *Selden* case the public domain was fiercely protected and broadened.

The *Folsom*, *Emerson*, and *Selden* cases were carefully selected because they date from the important decades before the *Berne Convention* was finalised – ironically, the USA only became a signatory to the *Berne Convention* in 1989. More importantly, all three cases were confronted by proponents of the public domain: For example, in the *Folsom* case a prominent public figure's copyright material was at stake, while in the *Emerson* and *Selden* cases, mathematical and accounting formulae/principles were at stake, and in the latter two cases the fair use was required for educational purposes (the public interest).

Humankind cannot progress without open access to mathematical formulae, which are essentially a symbol-format language, and of which the formulae have been in the public domain since ancient times. Similarly, humankind cannot progress without open access to lessons learned from history, from prominent world leaders. Boyle confirms this view when he says "the purpose of 'fair use' law is to make sure

²⁵⁹ *Baker v Selden (USA)* para 101.

²⁶⁰ *Baker v Selden (USA)* para 103.

that future creators have available to them an adequate supply of raw materials"²⁶¹
– with 'raw materials' alluding to content in the public domain.

A subtle point needs to be made. In all three of these USA cases, the challenge to the boundaries of the public domain was in fact to broaden the public domain and the open access of users thereto, while the rightsholders' rights were never compromised – in fact, the rightsholders' rights were confirmed by two judges within the constraints of the public domain (the *Folsom* and *Emerson* cases), while the third judge did not challenge the public domain, but rather suggested another genus of IP protection, for example, patents.²⁶² For now we will not investigate patents and move to the modern era and digital copyright.

2.6.3 Modern era and digital copyright developments since the 1990s

A few decades later, in the landmark *Deeks* case,²⁶³ the United Kingdom (hereafter UK) Privy Council ruled against the appellant, a Canadian historian, that history belongs in the public domain and no one can own the facts of history or their chronological order. Craig comments that this case "established copyright's merger doctrine and its rule against monopolizing systems or methods".²⁶⁴

With the dawn of the digital era in the late 1990s, WIPO appropriately responded in 1996 with two digital-age treaties.²⁶⁵ Here WIPO's thunder is briefly stolen to mention that the first digitally scanned version of an original printed edition of a book was made available by Hart in 1971 via Project Gutenberg²⁶⁶ for "enjoyment

²⁶¹ Boyle *Shamans, Software, and Spleens* 38.

²⁶² *Baker v Selden (USA)* para 105; When the Judge considered patents, he said "The description of the art in a book, though entitled to the benefit of copyright, lays no foundation for an exclusive claim to the art itself. The object of the one is explanation; the object of the other is use. The former may be secured by copyright. The latter can only be secured, if it can be secured at all, by letters-patent".

²⁶³ *Deeks v Wells (UK)* [1932] UKPC 66 (*Deeks* case); This is a UK Privy Council case referred to by the Canadian Appeal Court - *Florence A Deeks v HG Wells and others (Can)* [1932] UKPC 66.

²⁶⁴ Craig "Critical Copyright Law & the Politics of IP" 16; When the comparative legal analyses of specific countries on IKS are later conducted, their case law and policy developments will be analysed to establish whether IKS broadens or threatens the public domain in those countries.

²⁶⁵ *WPPT (1996)* (1996); Copyright Treaty (1996)(1996).

²⁶⁶ Project Gutenberg, *Project Gutenberg* (Project Gutenberg 1971).

and education"²⁶⁷ – the notion that education should not be negated while we are studying the public domain. In 2000, the first digital book was sold online by the publisher of one of Stephen King's novels.²⁶⁸ Craig²⁶⁹ comments that since the commencement of the digital age in the early 1980s, the international copyright system has shifted from the rights of copyright owners to the rights of users of copyright-protected works, as is evidenced from the two WIPO treaties above,

emphasizing the importance of flexibilities, exceptions, and limitations in intellectual property norm-setting and recognizing the benefits of a rich and accessible public domain.²⁷⁰

Modern era and digital copyright developments shows that the public domain should be accessible to users, but for now we need to conclude on the historic overview of copyright, which follows.

2.6.4 Further remarks on the historic overview of copyright

Still drawing on the copyright paradigm from the paragraphs above, one could argue that there has always been an onslaught on the public domain. Humankind's hunger for knowledge in its process of evolution appears to be limitless,²⁷¹ and over the centuries authors have always had to fight fiercely for the protection of their private property rights (and regulated open access thereto).²⁷² This explains the emergence of the legal instruments mentioned above by which private property rights are balanced against legally enforceable limitations and exceptions that serve the public domain.

Litman's²⁷³ deep understanding of copyright's undefined boundaries and how courts have consigned types of copyright-protectable works to the public domain, provides

²⁶⁷ Hart 1971 <https://www.gutenberg.org/wiki/Gutenberg>About>.

²⁶⁸ Verhoef *The fair dealing doctrine in respect of digital books* 2-5; The title of Stephen King's novel is *Riding the Bullet*. More than 500,000 digital copies were downloaded within the first two days.

²⁶⁹ Craig 2017 *Am U Int'l L Rev* 3.

²⁷⁰ Craig 2017 *Am U Int'l L Rev* 4.

²⁷¹ Meltzoff and Williamson "Imitation and modelling" 10.

²⁷² *Statute of Anne 1710*. "As the first modern copyright law, the Statute of Anne recognized copyright as an author's right, a major and important change in philosophy and in law".

²⁷³ Litman 1990 *Emory L J* 983.

useful ideas on how IKS should engage with the public domain. In this regard she groups copyright in three categories: 'systems', 'motion pictures', and 'directory' basing her classification of how USA courts have developed rules for dispute resolutions. These categories can be extrapolated to the legal arguments in relation to IKS and the public domain, and will be discussed separately below – the headings below (ie systems, motion pictures, and directories) are drawn directly from the report.

2.6.4.1 Systems case

With systems cases,²⁷⁴ the *Selden*²⁷⁵ and *Emerson*²⁷⁶ cases immediately come to mind – the cases dealt respectively with the systems and procedures of arithmetic and accounting methodology, which systems and procedures, according to the judgments, belong to the public domain "even when the ideas or systems reflected in works are ingenious".²⁷⁷ Analysed within the context of IKS, many IKS-related claims will end up in the public domain – eg, many of the Timbuktu Manuscripts in Mali show both mathematics and a heritage of astronomy in medieval Islam.²⁷⁸

2.6.4.2 Motion pictures cases

Worldwide courts have consistently ruled in favour of characters, ideas, plots, situations, themes, titles, and *scènes à faire*²⁷⁹ being part of the public domain.²⁸⁰ Here Litman did a tremendous job reviewing many court judgments that eventually decided in favour of the public domain based on arguments such as "trite, stock, common, or cliché".²⁸¹ One such case that is of direct relevance to this thesis is the

²⁷⁴ Note that systems cases refer to books, lectures, or charts explaining a system or procedure do conduct something.

²⁷⁵ *Baker v Selden (USA)*.

²⁷⁶ *Emerson v Davies et al (USA)*.

²⁷⁷ Litman 1990 *Emory L J* 984.

²⁷⁸ See para 4.6.

²⁷⁹ Litman 1990 *Emory L J* 987; *Scènes à faire*, according to Litman who refers to Judge Yankwich, as a "literate Francophile", "are the common stock of literary composition - 'cliches' - to which no one can claim literary ownership".

²⁸⁰ Litman 1990 *Emory L J* 987. Not that with motion picture cases the plots were often old and could be found in other works already in the public domain.

²⁸¹ Litman 1990 *Emory L J* 987; In this article Litman provides a comprehensive list of court cases to substantiate her arguments.

Nichols case.²⁸² There the facts were briefly that the plaintiff was the author of *Abie's Irish Rose*, a motion picture. The script was about a young Jewish man who marries an Irish Catholic girl against the wishes of both of their fathers. Universal Pictures Corporation (the defendant) then produced the *Cohens* and *Kellys*, films with very similar storylines, main characters, and elements as the plaintiff's play on which the film was based. While considering the boundaries between an idea (the plaintiff's original storyline) and the expression of that idea (the films), Judge Hand stated that:

[N]obody has ever been able to fix that boundary, and nobody ever can. In some cases the question has been treated as though it were analogous to lifting a portion out of the copyrighted work.²⁸³

The court then held that "the play's broad outlines and the ideas it expressed nonetheless were part of the public domain".²⁸⁴ Analysed in the context of IKS, many motion picture claims will end up in the public domain. For example, folklore can, according to the court cases above, be seen as ideas that belong to the public domain. Proponents of IKS will strongly object to this assumption, because of the argument that the plots belong to the community, hence further endeavours in this thesis to find a legal solution to manage access to folklore that is in the public domain.

2.6.4.3 Directories cases

That facts cannot be copyrighted is well settled in all IP regimes worldwide,²⁸⁵ where a simple question needs to be answered: "Did the compiler of the facts use original effort (expend significant labour) while collecting the facts?" In South Africa, for instance, this was indeed the situation in the *Fax Directories* case²⁸⁶ where the court found that the blatant copying by the defendant of a telephone directory was not

²⁸² *Nichols v Universal Pictures Corp (USA)* 34 F2d 145 (SDNY 1929).

²⁸³ *Nichols v Universal Pictures Corp (USA)* para 112.

²⁸⁴ *Nichols v Universal Pictures Corp (USA)* case para 122.

²⁸⁵ Litman 1990 *Emory L J* 989. Note that with directories cases, courts gave copyright protection to facts.

²⁸⁶ *Fax Directories (Pty) Ltd v SA Fax listings CC* 1990 (2) SA 164 (D) (hereafter *Fax Directories* case).

insubstantial²⁸⁷ and that no original effort had been made to copy the telephone numbers (facts).

Analysed within the context of IKS, many databases and directories will simply be regarded as a repository for IKS – the South African National Indigenous Knowledge Management System (NIKMAS)²⁸⁸ is a case in point. At this early stage in the thesis it is useful to refer to the Honey Bee Network in India which is making tremendous inroads into the boundaries of the public domain, user rights, and the protection of the IPLC by means of their pro-active management of information.²⁸⁹

After Litman discussed the systems, motion pictures, and directory categories of court cases she observes that, in general, courts have increasingly "resort[ed] to the French *scènes à faire* doctrine during the last decade".²⁹⁰ This observation is not to be underestimated and requires further investigation.

2.6.5 Concluding remarks on the historic overview of copyright

The copyright paradigm is now hypothetically extrapolated to the legal problems around the IKS paradigm. Similarities are immediately evident. However, there are three clear differences that need to be fully appreciated. First, in the IKS paradigm the fierce fight for the protection of traditional property rights resides within the domain of IPLC and not with creative and innovative individuals per se. Second, IKS arguably attempts to narrow the public domain – many IKS arguments are in favour of closed access to the public domain, for example in Madagascar.²⁹¹ In Raath's view the IKS paradigm is currently leaning towards a relative paradigm where cultural heritage is dealt with in a subjective manner.²⁹² A normative approach is more appropriate and this thesis will attempt to achieve this objective. Third, TK, TCE and

²⁸⁷ *Fax Directories (Pty) Ltd v SA Fax listings* CC 167.

²⁸⁸ NIKMAS is an IKS repository of DSI that is hosted on an ICT platform since 2004, after the IKS policy was adopted by the Cabinet of the South African government.

²⁸⁹ Honey Bee Network 2019 <http://www.honeybee.org/>.; Also see the case study in para 4.3.2.4.

²⁹⁰ Litman 1990 *Emory L J* 1022.

²⁹¹ Boyle *Shamans, Software, and Spleens* 128; Also see case study in para 2.4.4.2.

²⁹² Raath, *Onslaught on the public domain* (2018).

GR, always relate to the issue of land rights and who has control over and/or access to the land on which the GR may be found.²⁹³

At present, in the age of the fourth industrial revolution (hereafter 4IR), we are dealing with even more advanced and disruptive technologies which directly impact on copyright, such as AI and big data. These topics (4IR and AI) do not form part of this thesis, as they still need to develop sufficiently before legal challenges can be properly defined.²⁹⁴

Finally, the comparison between the copyright paradigm and the IKS paradigm also needs to be extended – but not limited – to other domains of IP rights, such as patents and trademarks. Arguments in respect of patents will be useful in contextualising the influence of disruptive technologies on the creators or inventors during the fourth industrial revolution. In this regard it is important to appreciate the following. A patent must be associated with inventors, ie a natural persons (ie, the creator or inventor, to the express exclusion of a group, community, or tribe). Patents will not be further discussed in this introductory chapter but will receive the necessary attention at a later stage when open access to traditional, as well as controversial patented medicine, is analysed in the context of IKS.

Trademarks can conveniently be associated with territories, IPLC, and/or natural persons, as will be explained later. Concerning handicrafts, the WIPO- IGC makes a strong case that registering and using a collective or certification mark

can help indigenous communities to distinguish their handicrafts from others, and promote them and the artists who made them nationally and internationally.²⁹⁵

The WIPO-IGC's insight should be credited to the French with their highly acclaimed *appellation d'origine controlee* approach towards trademarks.

²⁹³ Biber-Klemm and Cottier (eds) *Rights to plant genetic resources and traditional knowledge: Basic issues and perspectives* 106.

²⁹⁴ See Annexure B; The impact of big data on the copyright regime in the digital age in which we live is briefly touched on in this annexure.

²⁹⁵ WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>. 2.

2.7 The public domain, digital technologies, and bio-technologies

Apart from the views of public domain scholars discussed above, it is also useful to understand how developed countries perceive the digital public domain in a technologically advanced society. In a report recently commissioned by the UK Intellectual Property Office, the well-represented research group collected and studied empirical evidence to: first, map the size of the public domain; second, to analyse the value creation of the public domain for UK businesses; and lastly, to develop business models that can empower the UK's entrepreneurs to exploit the public domain.²⁹⁶ Essentially, the UK's approach to the public domain is, if paraphrased, how can we broaden the public domain to grow our digital economy?

In their systematic approach they define the public domain as far as it relates to copyright, as follows – each to be discussed under a separate heading below:

copyrighted works which are out of their term of protection;

materials that were never protected by copyright;

underlying ideas not constituting a substantial expression;

works offered to the public domain by their creators.²⁹⁷

This definition has enabled the researchers to be pragmatic in their attempt to obtain data from commercial and non-commercial users of the public domain.

The research was conducted within the context of the digital era in which we live. Recent technological developments around high processing computers, big data, AI and digitisation have made it possible for users to access a near infinitude of copyrighted works, as well as to create and distribute digital copies of works across borders and through a range of technical devices. These developments immediately led to interesting approaches by governments on the re-use of information that was in the public domain in the first instance.

²⁹⁶ Erickson *et al* *Copyright and the value of the public domain: An empirical assessment* 1.

²⁹⁷ Erickson *et al* *Copyright and the value of the public domain: An empirical assessment* 2.

Notably, in this report the UK's approach was to find new ways to stimulate the production of new cultural products which draw from or use ideas and works in the digital public domain. To do so, the contours of the public domain have had to be defined and the researchers, led by Erickson,²⁹⁸ approached this in a very professional manner – a behavioural approach which also considered first principles of law. The behavioural approach can be seen as all those activities which users may undertake without seeking permission to use the works. The legal approach reverted to scholars who perceive the public domain as a negative space defined by the absence of formal rights (eg, copyright that lapses after 50 years). With both approaches there is an appreciation that the public domain is of equal importance to creative producers of new cultural products who wish to have unrestricted access to the public domain, and consumers who seek to enjoy works without infringing the copyright of others. Erickson et al also tried "to simplify the complexity of the usage-constituted public domain so that it becomes measurable, and ... relevant to creators and entrepreneurs".²⁹⁹

Although the UK is not one of the countries selected in Chapter 3 where a legal review is conducted, it serves this thesis well briefly to consider how Erickson et al developed the definition of the digital public domain from a sound legal perspective, because the UK's strong commercial approach toward the public domain holds lessons to be learned from when commercial aspects of IKS are considered later.

2.7.1 Copyrighted works which are out of their term of protection

Erickson et al referred to the UK *Copyright Act*, which provides for a 70-year duration of copyright in literary, dramatic, musical, and artistic works.³⁰⁰ They cautioned that due to the global nature of digital media, UK jurisdiction might not always apply.

²⁹⁸ Erickson *et al Copyright and the value of the public domain: An empirical assessment* 6.

²⁹⁹ Erickson *et al Copyright and the value of the public domain: An empirical assessment* 5.

³⁰⁰ Section 12(2) of the UK *Copyright Designs and Patents Act (UK)* 48 of 1988. "12(2) Copyright expires at the end of the period of 70 years from the end of the calendar year in which the author dies, subject as follows...".

Erickson et al's approach is consistent with the Australian approach (ie, copyright is entirely a creature of statute).³⁰¹

2.7.2 *Materials that have never been protected by copyright*

Like IKS related copyright, the UK was not spared of complexities related to unprotected copyright works. In this regard Erickson et al took a broad approach and consider all works that copyright has never protected, including

myths and stories from antiquity, religious iconography and texts, and a multitude of other literary and artistic expressions; [and] non-fixed expressions such as oral traditions and folk tales, common sayings and phrases, layperson knowledge, historical events, compendiums of facts, scientific discoveries, and other ideas that do not qualify for copyright protection.³⁰²

Their appreciation of the complexity of this part of their definition becomes clear when they refer to Australian court cases³⁰³ – *prima facie*, folklore would not satisfy the originality and fixation requirements of copyright laws in the UK. Their excursion to the Australian outback did not last too long, and soon they elected to relocate to familiar terrain when they realised that some of London's most renowned 'public figures' – ie, red busses, Big Ben, Westminster Bridge, and the Houses of Parliament – are essentially the manifestation of the public domain in the UK. Here they had the luxury of analysing the so-called *Red bus* case, or to be more precise, the *Temple Island Collections Ltd v New English Teas* case.³⁰⁴

Briefly, the facts of this case are as follows: Both the claimant and defendant took digital photographs where images of the four landmarks are simultaneously represented, incidentally from the same place where tourists also have the opportunity to take similar images of these iconic landmarks. In both instances the photos were digitally manipulated using a technique well known to amateur and professional photographers alike. The dispute did not arise around the facts, but from the results: the claimant's photo became a popular post card, while the

³⁰¹ See para 4.2.6.

³⁰² Erickson *et al* *Copyright and the value of the public domain: An empirical assessment* 9.

³⁰³ The *Yumbulul*, *Milpururru* and *Bulun* cases that are referred to are discussed in para 4.2.6.

³⁰⁴ *Temple Island Collections Ltd v New English Teas (UK)* [2012] EWPCC (hereafter *Red bus* case).

defendant's photo is used on the packaging of his tea products – and both these products are sold at tourist spots. This, it was argued, resulted in the alleged confusion in the marketplace.³⁰⁵

Before the judge held in favour of the claimant that "the defendants' work infringes the claimant's copyright",³⁰⁶ he considered the following legal questions: the subsistence of copyright; originality; and infringement. On the subsistence of copyright, the judge had no hesitation in holding that copyright indeed subsisted in the claimant's works, relying on the UK's *Copyright Act*.³⁰⁷ He further confirmed that the inclusion of icons such as Big Ben in creative works can never lead to arguments that copyright does not subsist in a work. Based on a qualitative assessment by the judge of the reproduced elements in the photographs, the defendant was not able to convince the court that he had not used a substantial part of the original work – this despite the fact that he was indeed the copyright owner of the photograph that he had taken on his own device and his argument that the claimant's work is "too general to be original".³⁰⁸

It is not difficult to agree with the many critics of this judgment. For example, former Judge Harms was quick to point out that in terms of South African law there is no doubt that the defendant's photograph would have passed the originality test. He also points out that the South African *Copyright Act* does not define 'originality', but is clear because it does not require artistic merit.³⁰⁹ The so-called 'sweat-of-the-brow' test that South African courts apply was a concern, when the judge referred to various court cases where it has been held that the test requires substantial skill,

³⁰⁵ *Temple Island Collections Ltd v New English Teas (UK)* paras 4-8.

³⁰⁶ *Temple Island Collections Ltd v New English Teas (UK)* paragraph 70.

³⁰⁷ Sections 1(1)(a) and 4(2) of the UK *Copyright Designs and Patents Act (UK)*. Section 4(1)(a) "Artistic work" means "a graphic work, photograph, sculpture or collage irrespective of artistic quality." S 4(2) "Photograph" means a "recording of light or other radiation on any medium on which an image is produced or from which an image may by any means be produced, and which is not part of a film".

³⁰⁸ *Temple Island Collections Ltd v New English Teas (UK)* paras 33, 51.

³⁰⁹ Sections 1(1) and 2(1) of the *Copyright Act* 98 of 1978. "S 1(1) "Artistic work" means, irrespective of the artistic quality thereof - (a) paintings, sculptures, drawings, engravings and photographs; "photograph" means any product of photography or of any process analogous to photography, but does not include any part of a cinematograph film. S 2(1) Subject to the provisions of this Act, the following works, if they are original, shall be eligible for copyright - (c) artistic works".

labour, and judgement, and that the defendant's photograph could, therefore, indeed be seen as a purely mechanical exercise for commercial gain.³¹⁰

	
Figure 2.1: <i>Red bus</i> case - The claimant's work	Figure 2.2: <i>Red bus</i> case - The defendant's work³¹¹

But how does one drive the red bus closer to the IKS discourse? Many parallels can be drawn. For example, the 'sweat-of-the-brow-test' has many resemblances with the Australian Morning Star Pole case study, where many authors created the same content, but under different circumstances.³¹² The next bus stop can be the discourse on individual vs communal ownership of copyright – again in Australia where this matter is analysed.³¹³

2.7.3 *Underlying ideas not constituting substantial expression*

This third part of the authors' definition of the public domain comes as no surprise and correlates with public domain scholars with similar views (eg, Boyle and Litman). At this stage it suffices to agree with the authors who comment that copyright disputes tend to revolve around plots, themes, medium, character, genre;³¹⁴ or the French *scènes à faire* doctrine as preferred collective reference to

³¹⁰ Harms 2013 *Potchefstroom Electronic Law Journal* 492-493.
³¹¹ *Temple Island Collections Ltd v New English Teas (UK)*annex I, II; The reproductions of the photographs inserted here are to be found in the judgment.
³¹² See para 4.2.6.1.
³¹³ See para 4.2.6.3.
³¹⁴ Erickson *et al Copyright and the value of the public domain: An empirical assessment* 15.

these structural narrative elements. When the sacred nature of IKS is discussed the relevance of this paragraph will become clear.

2.7.4 Works offered to the public domain by their creators

This third part of the authors' definition of the public domain relates to Creative Commons licences, a licencing system that predefines terms on which authors can dictate how their works are made available in a digital format to the public domain,³¹⁵ is a very prominent example of what Erickson et al categorise under this fourth part of their definition of the public domain. The enforceability of the rights that copyright holders give to users under these open licence conditions are derived from the underlying IP rights in the respective jurisdictions where the works were created.³¹⁶

Chander and Sunder are legal scholars who recognise that Creative Commons licences "pragmatically redress the inegalitarian exploitation of the public domain without stifling either property or the public domain in the process".³¹⁷ They argue that by preventing monopoly rights in certain information, the economic value of such knowledge in the public domain may be reduced, leaving "diminished profits to share".³¹⁸ Chander and Sunder also scrutinise the public domain from a broader digital perspective and point out how inequalities in society can negate the best intentions to broaden the public domain. They draw an analogy with the first enclosure movement in the UK, where the transportation system (roads at that time) facilitated the development of private property in land alongside a public domain (roads). However, the public domain was only accessible to those with horses and carts, to the exclusion of the majority of the people, leading to even greater inequality.³¹⁹ Similarly, today the internet is the public domain where knowledge can

³¹⁵ Chander and Sunder 2004 *California Law Review* 1361.

³¹⁶ Erickson *et al Copyright and the value of the public domain: An empirical assessment* 20; Note that, according to the authors "One area identified in our research which made frequent use of free and open licensed work was Wikipedia. Some 12% of the images contained in our sample of biographical pages of authors, lyricists and composers were used under unrestrictive open licences such as Creative Common".

³¹⁷ Chander and Sunder 2004 *California Law Review* 1362.

³¹⁸ Chander and Sunder 2004 *California Law Review* 1363.

³¹⁹ Chander and Sunder 2004 *California Law Review* 1346.

be freely accessed, provided you have the necessary infrastructure (access to data, broadband, and digital devices). They use the same argument to point out why the aims of the *TRIPS Agreement* are not achievable so long as the public domain is not also accessible to developing countries.

More importantly, as Erickson et al point out, is that even in developed countries the unequal access to the public domain is experienced by individuals and small enterprises. They identify the following reasons, and also make recommendations that can be extrapolated to similar IKS challenges, stressing that the *TRIPS Agreement* is not to blame for these inequalities in the exploitation of IP and IKS in developing countries: i) limited local opportunities for commercialisation; ii) lack of extensive public investment in research; iii) capital constraints; and iv) unfamiliarity.³²⁰ The lack of commercial opportunities is particularly true of India.³²¹ Point iv above (unfamiliarity), speaks to developed and developing countries. For example, in the USA the *Bayh-Dole Act* was put in place in 1980 to address the divide between academics and industry, and today the USA can rightfully claim that the public domain of scientific knowledge serves all Americans well.³²² IPLCs' unfamiliarity with the international IP system and how to reconcile it with IKS, results in "the intellectual products held in the developing world rest in a global public domain, while the intellectual products of the developed world are held closely by corporations – the romance of the public domain".³²³

2.7.5 Healthcare

There is also a public domain in the healthcare industry. The majority of the seven judges ruled in the American *Moore* case, that Moore had no proprietary interest in the cells derived from his spleen, arguing that giving private property rights to natural resources such as human tissue would slow innovation.³²⁴ This ringfencing of the human genome, while many others may profit from related stem cell

³²⁰ Chander and Sunder 2004 *California Law Review* 1351-1352.

³²¹ See para 4.3.6.

³²² *Bayh-Dole Act (USA)* 1980.

³²³ Chander and Sunder 2004 *California Law Review* 1353.

³²⁴ *Moore v Regents of Univ of California (USA)* 793 P2d 479 (1990) 488 (hereafter *Moore* case).

technologies, together with developments in the ICT sector, contributed to Boyle's second enclosure movement. He says that the "old limits to intellectual property rights – the anti-erosion walls around the public domain – are also under attack [and] the commons of facts and ideas is being enclosed".³²⁵ In other words, digital technologies make it easy to 'rip, mix, and burn' digital content, hence commerce's response with technological protection measures such as digital rights management (hereafter DRM). The availability of bio-informatics and bio-medical resources now force us to rethink the ethical and moral basis on which such very private information is ringfenced (or as Boyle would refer to it, 'enclosed'), or not, with Boyle reverting to the requirement that such enclosure must assist innovation to prosper in society – with the support of civil libertarians, free-marketeers, artists, and scientists.³²⁶

2.8 Conclusion

This chapter aimed to understand the fundamental legal principles that define the public domain. The copyright paradigm served as a useful metaphor to understand how the public domain evolved over centuries until where it is today. Technological advances directly impacted on the copyright regime and the public domain, and it would be safe to argue at this point in time that the public domain was broadened as a result of technology, as was pointed out by the study that was conducted in the UK. It was also found that the legal principles that define copyright are universal and never changed over the centuries – notably those principles related to the moral rights of authors that emanated under French influence and which are now widely applied worldwide. These findings will become useful when the study moves towards applying the principles pertaining to copyright to IKS in the chapters to follow.

The public domain was then briefly analysed from three perspectives, namely international law instruments, human rights and IP rights. It was found that none of these perspectives lead to a narrow interpretation of the public domain – in fact,

³²⁵ Boyle 2003 *Law & Contemp Probs* 39.

³²⁶ Boyle 2003 *Law & Contemp Probs* 50.

they all aim to broaden the public domain. It also became evident from the analysis that a more comprehensive analyses of international law instruments, human rights and IP rights is needed if one wants to apply these perspectives to IKS and how the research question can be answered. Here the initial findings of the WIPO-IGC pertaining to the *Berne Convention* and the evolution of copyright serves as an example.

These early findings on the public domain will now assist to apply the fundamentals of the public domain to IKS. With these insights and a fundamental understanding of the public domain addressed, we are now moving towards an in-depth discussion of international law instruments and their application to IKS.

CHAPTER 3 INTERNATIONAL LAW INSTRUMENTS THAT HAVE RELEVANCE TO INDIGENOUS KNOWLEDGE SYSTEMS

3.1 Chapter overview

Chapter 1 explained IKS from different perspectives and how IPLC do not necessarily share the pre-appropriation narrative of the public domain as the Western world. In Chapter 2 the public domain was analysed, because the public domain provides a neutral platform to address the opposing views set out in Chapter 1, as well as the research question posed. Chapter 3 now proceeds to discuss international law instruments relevant to the public domain, IP and IKS, because the "validation and vindication of the rights of indigenous people under international law",³²⁷ as well as the national and international recognition of their rights are at the heart of this thesis. It is also worth noting that in terms of the *Constitution* we are obliged to consider international law.³²⁸

International law instruments include binding and non-binding treaties, conventions, declarations, agreements, and protocols.³²⁹ These international law instruments are typically regulated employing two principles: national treatment; and reciprocity. With national treatment, it is understood that a foreign national is afforded the same level of treatment as a citizen of that country. With reciprocity, it is understood that a foreign national is given the same rights in a country as a national of that country has in their own country.³³⁰ Most of the international law instruments that are discussed are based on these principles. Concerning IP rights, the *TRIPS Agreement* added another principle, namely that of 'the most-favoured nation treatment'.³³¹

There are more than 20 international and regional instruments of importance to the public domain, IP and IKS within the context of this thesis, most of which will be

³²⁷ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 1.

³²⁸ Section 233 of the *Constitution*; Also see Du Plessis and Lubbe 2021 *Constitutional Court Review* 80.

³²⁹ See Table C-1 where these international law instruments are summarised.

³³⁰ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 13.

³³¹ See para 3.7.

analysed in this chapter. In summary these international law instruments are human rights instruments, IP instruments, natural and genetic resources instruments and trade agreements.³³²

These international law instruments are not exhaustive – they merely address some of the key public domain, IP and IKS issues at hand, for example, the *Berne Convention* addresses copyright, the *Paris Convention* addresses patents and trademarks, and notably, the WIPO digital treaties, dating more than 100 years later, inter alia attempt to bring international best practice and laws in line with recent digital and technological developments worldwide.

Although not the rule, the international law instruments are discussed in chronological order. There are two reasons for this approach. First, it supports the chronological development of the copyright paradigm, as was earlier explained,³³³ and is the method used when other forms of IP protection, for example, trademarks, are analysed. Second, with reference to Helfer,³³⁴ a clear international trend of contestations over IP law-making within the context of four international regime shifts – biodiversity, plant genetic resources (hereafter PGR), public health, and human rights – have developed since the classic treaties of the previous century.³³⁵

³³² See Table C-1.

³³³ See para 2.6.

³³⁴ Helfer 2004 *Yale J Int'l L* table 2, p 46, 50 and 62.

³³⁵ Helfer describes developing countries' rationale for the regime shifts as "laboratories to maximise desired policy outcomes [and] integrating new principles, norms and rules [and] generating counter regime norms". Although Helfer does not name them, he points out that proponents of the human rights regime see developments in the IP space as a threat to the economic, social, and cultural rights of developing countries. This could be seen by some as an onslaught on the public domain ("the primacy of human rights obligations over economic policies and agreements"), as will become evident when the treaties are discussed in greater detail in para 3.2 when the open access to content (IP, TK, TCE, GR) that is in the public domain, on the one hand, and the other, the controlled access and restriction to that content, is discussed. "Predominant rationale for post-TRIPS regime shifting by developing countries: Biodiversity: Laboratories to maximize desired policy outcomes (eg controlling access to national biodiversity and protecting traditional knowledge; PGR: Laboratories to maximize desired policy outcomes (eg facilitating access to PGR in international seed banks in exchange for benefit sharing); Public Health: Integrating new principles, norms, and rules into the WHO and WIPO (eg greater access to patented medicines); Human Rights: Generating counterregime norms (eg granting primacy to human rights obligations over trade and IP agreements)".

3.2 Berne Convention

3.2.1 Introduction

The *Berne Convention for the Protection of Literary and Artistic Works* (hereafter *Berne Convention*)³³⁶ relates to literary and artistic works. As mentioned,³³⁷ there were notable European and American influences during the turbulent years preceding its acceptance by many countries. In Europe, Victor Hugo made a famous speech where he said: "Let us insist on literary property while at the same time fostering the public domain".³³⁸ His advocacy for the *droit moral* of authors during that time is also well reported. Roundabout the same time in the USA, three court judgments fundamentally influenced the USA's view of copyright, fair use and how the public domain is perceived – these are the *Folsom*,³³⁹ *Emerson*,³⁴⁰ and *Selden*³⁴¹ cases.³⁴²

The *Berne Convention* has been redrafted, revised, and amended eight times since its adoption in 1886.³⁴³ The latest amendment is the *Paris Act* of 1979 (hereafter *Paris Act*). South Africa signed the *Berne Convention* on 3 October 1928 and has subsequently ratified the Brussels amendments of 1948 dealing with substantive provisions and the *Paris Act* regarding administrative provisions. The South African *Copyright Act* was later amended to comply with the *Paris Act*. Although no formal steps have been taken to accede to the *Paris Act*, the necessary legislative measures are in place.³⁴⁴

The *Berne Convention* is drafted around three fundamental principles –*droits des auteurs, domaine public and droit moral*.

³³⁶ *Berne Convention (1886)*.

³³⁷ See paragraph 2.6.

³³⁸ Fitzgerald and Gilchrist (eds) *Copyright Perspectives: Past, Present and Prospect* 3.

³³⁹ *Folsom v Mash (USA)*.

³⁴⁰ *Emerson v Davies et al (USA)*.

³⁴¹ *Baker v Selden (USA)*.

³⁴² See para 2.6 where these cases were discussed.

³⁴³ Verhoef *The fair dealing doctrine in respect of digital books* 63.

³⁴⁴ Verhoef *The fair dealing doctrine in respect of digital books* 63.

In the next three paragraphs the three fundamental principles of the *Berne Convention* will be investigated, and insights shared on how scholars such as Craig understand them in relation to the public domain.

3.2.2 *Fundamental principles of the Berne Convention*

3.2.2.1 Principle 1: Droits des auteurs

Unlike other forms of IP rights such as patents and trademarks, the *Berne Convention* provides that copyright comes into being by creating the work. One of the fundamental principles of the convention is that "the enjoyment and the exercise of these rights shall not be the subject to any formality [or fees]".³⁴⁵ Only original effort is required for the creation of a new work.³⁴⁶ Furthermore, article 2(2) of the *Berne Convention* provides that copyright cannot come into existence and be protected "unless they have been fixed in some material form".³⁴⁷

In many manifestations of IKS, TK and TCE are sacred and/or secret and transferred in IPLC from one generation to the next by means of storytelling or sacred ceremonies. Those genus of IKS can therefore not comply with the material form principle of the Convention, which is problematic from this thesis' perspective and needs to be addressed.

3.2.2.2 Principle 2: Domaine public

Copyright is not an absolute right, hence the introduction of article 9(2) to the Convention, which regulates the limitations and exceptions under which rightsholders may exercise their copyright. The classic 'three-step test' used to determine the boundaries of the public domain within the copyright regime, was developed from article 9(2). The three-step test provides exceptions to rightsholders' exclusive right of reproduction of the works by setting out the

³⁴⁵ Article 5(2) of the *Berne Convention (1886)*. "The enjoyment and the exercise of these rights shall not be subject to any formality; such enjoyment and such exercise shall be independent of the existence of protection in the country of origin of the work".

³⁴⁶ *Keeling Intellectual property rights in EU law* 286.

³⁴⁷ Article 2(2) of the *Berne Convention (1886)*.

requirements to be met by any legislative provision granting exemption from infringement of the right to reproduce copyright-protected works. The three-step test essentially applies to i) special cases of reproduction, ii) which may not be in conflict with existing exploitation of the work, and iii) which may not unreasonably prejudice the legitimate interests of the rightsholders.³⁴⁸

The worldwide acceptance and application of the three-step test is testimony to the need for a public domain. Craig says in this regard that:

The gulf between the actual processes of authorship and the law's construction of human creativity would render the copyright system unworkable were it not for the construct of the public domain which protects the copyright system by freeing it from the burden of deciding questions of ownership that it has no capacity to answer.³⁴⁹

The three-step test's application in IKS matters have also been investigated by some, such as Okediji. In one of Okediji's works, she proposes a four-tier approach to strike a balance between the public domain and IKS. Under this tiered approach, she recommends that article 9(2) of the *Berne Convention* should be revised since, if the test is correctly applied, many of the fears of IPLC can be adequately addressed.³⁵⁰

To illustrate the point, the three-step test to delineate the public domain and Okediji's four-tier approach are combined to see if it is indeed possible to harmonise IKS and the *Berne Convention*:

³⁴⁸ Article 9(2) of the *Berne Convention (1886)*. "It shall be a matter for legislation in the countries of the Union to permit the reproduction of such works in certain special cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author".

³⁴⁹ Craig "Critical Copyright Law & the Politics of IP" 14.

³⁵⁰ Okediji 2018 *Centre for International Governance Innovation* 15, 16.

Table 3-1 Okediji's four-tier approach³⁵¹

Berne Convention	Four IKS Tiers³⁵²
Three-Step Test (article 9(2))	1. Secret and sacred IKS 2. Closely held IKS 3. Widely disseminated IKS 4. Generic IKS
Step 1: Reproduction of works are confined to certain special cases.	TK and TCE will comply with tiers 1 & 2, with tier 3 being marginal in many cases. Tier 4 will not pass Step 1. GR will most likely not comply with these tiers.
Step 2: The reproduction is not in conflict with the normal exploitation of the work.	Tiers 1 & 2 will most likely pass Step 2.
Step 3: The reproduction does not unreasonably prejudice the legitimate interests of the rightsholders. ³⁵³	Only tier 1 will pass Step 3.

Even though this progressive proposal is commendable, two fundamental questions were not raised by Okediji, namely who is the author (juristic person) that applied original effort to create the work; and how will sacred and secret TK or TCE be defined as works (legal objects)? Bratspies attempts to answer the first question by asking: "Who owns knowledge?"³⁵⁴ He then proceeds to argue that knowledge is by nature not open to possession. For IPLCs, ownership of their TK is inextricably linked

³⁵¹ Okediji 2018 Centre for International Governance Innovation 15, 16; Table prepared by the author of the thesis.

³⁵² See para **Error! Reference source not found.** where the four tiers are discussed within the SA context.

³⁵³ Note that a reread of the red bus case in para 2.7.2 might assist to better understand this point.

³⁵⁴ Bratspies 2006 *American Indian Law Review* 316.

with issues of sovereignty, cultural survival, and the ability to transfer this knowledge from one generation to another.³⁵⁵

Okediji's recommendation serves as early indication that the *Berne Convention* has indeed stood the test of time, since the three-step test and the implied delineation of the public domain also manifests in other international law instruments, such as the *TRIPS Agreement*,³⁵⁶ the *WCT*,³⁵⁷ the *WPPT*,³⁵⁸ as well as the *EU Copyright Directive of 2001* (hereafter *InfoSoc Directive*).³⁵⁹ The last three instruments mentioned all deal with limitations and exceptions in respect of digital works and are discussed separately.

3.2.2.3 Principle 3: Droit moral

The third principle manifests in article 6^{bis} of the *Berne Convention*,³⁶⁰ which deals with the *droit moral* of authors, one of the causes for which Victor Hugo fought so

³⁵⁵ Bratspies 2006 *American Indian Law Review* 321.

³⁵⁶ Article 13 of the *TRIPS Agreement* (1994). "Limitations and Exceptions: Members shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder".

³⁵⁷ Article 10 of the *WCT* (1996). "Limitations and Exceptions: (1) Contracting Parties may, in their national legislation, provide for limitations of or exceptions to the rights granted to authors of literary and artistic works under this Treaty in certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author. (2) Contracting Parties shall, when applying the Berne Convention, confine any limitations of or exceptions to rights provided for therein to certain special cases that do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the author".

³⁵⁸ Article 16 of the *WPPT* (1996). "Limitations and Exceptions: (1) Contracting Parties may, in their national legislation, provide for the same kinds of limitations or exceptions with regard to the protection of performers and producers of phonograms as they provide for, in their national legislation, in connection with the protection of copyright in literary and artistic works. (2) Contracting Parties shall confine any limitations of or exceptions to rights provided for in this Treaty to certain special cases which do not conflict with a normal exploitation of the performance or phonogram and do not unreasonably prejudice the legitimate interests of the performer or of the producer of the phonogram".

³⁵⁹ Article 5 of the Directive on the Harmonisation of certain aspects of Copyright and related rights in the Information Society 2001/29/EU (2001). "A 5.5. The exceptions and limitations provided for in paragraphs 1, 2, 3 and 4 shall only be applied in certain special cases which do not conflict with a normal exploitation of the work or other subject-matter and do not unreasonably prejudice the legitimate interests of the rightsholder".

³⁶⁰ Article 6^{bis} of the *Berne Convention* (1886). "(1) Independently of the author's economic rights, and even after the transfer of the said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation".

hard. *Droit moral* relates to authors' rights of a moral kind, in addition to economic rights and stems from the fact that works are reflections of the personality of creators. The prerogatives pertaining to *droit moral* relate to objecting to any distortion or mutilation of the authors' work which would be detrimental to the authors' reputation.³⁶¹ Authors formulated various legal arguments around the question of whether *droit moral* is a personal right or can also be extended to juristic persons, such as IPLC. For example, Visser says that morality can be read differently in the IKS discourse and gives a few examples stemming from Europe,³⁶² New Zealand,³⁶³ South Africa³⁶⁴ and the *TRIPS Agreement*.³⁶⁵

Visser's view that "immorality of appropriation taints whatever exploitation occurs after such appropriation" is supported, as well as his plea to amend IP legislation in South Africa to "restate the morality requirement in more conventional terms"³⁶⁶ as well as to ensure that IPLCs' moral rights are recognised.

In summary, all three principles of the *Berne Convention* are also applied in IKS, albeit with some subtleties when the author is a community, or where the works were created during sacred and secret ceremonies. These nuances are important to understand and will be done for specific countries, because the *Berne Convention*

³⁶¹ Masouyé *Guide to the Berne Convention for the Protection of Literary and Artistic Works* 41; Also see Article 27(2) of the TRIPS Agreement, which imposes a moral requirement for patentable inventions – a discretion imposed by governments and not by individuals of IPLC per se.

³⁶² Visser 2002 *S Afr Mercantile L J* 665. He says, in Europe, "morality relates only to the exploitation of the invention, and not to the morality of the appropriation of the invention, or genetic resources or traditional ecological knowledge on which it is based".

³⁶³ Visser 2002 *S Afr Mercantile L J* 665. He says, in New Zealand, guidelines were developed to assist patent examiners with inventions derived from the Maori people's knowledge, and to what extent the application may have "special cultural or spiritual significance for Maori, and whether or not the application is likely to be considered culturally offensive".

³⁶⁴ Section 36(1)(b) of the *Patents Act*. "Power to refuse applications in particular cases. (1) If in the case of any application it appears to the registrar - (b) that the use of the invention to which the application relates would be generally expected to encourage offensive or immoral behaviour, he shall refuse the application".

³⁶⁵ Article 27(2) of the *TRIPS Agreement (1994)*. "Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law".

³⁶⁶ Visser 2002 *S Afr Mercantile L J* 666.

provides for country-specific legislation, which necessitates a country specific approach to these principles.

3.2.3 *WIPO Copyright Treaty and the Appendix to the Berne Convention*

Administered by WIPO, the *WIPO Copyright Treaty*³⁶⁷ (hereafter *WCT*) is, according to article 1,³⁶⁸ a special agreement under the *Berne Convention* that deals with the protection of digital works and the rights of their authors while addressing the challenges posed by digital technologies.³⁶⁹

Developing countries with strong IKS profiles cannot ignore the potential impact of the *WCT* on the way TK and TCE are to be disseminated or withheld from the public domain, while simultaneously arguing for a more open system to access knowledge for teaching and learning purposes. In this regard many authors regard the *WCT* as unsuitable for developing countries and IKS. Pistorius, for example, argues that even though the *WCT* applies the same three-step test as the *Berne Convention*,³⁷⁰ technological protection measures (TPM), such as DRM worldwide are so advanced that rightsholders cannot only use TPM to protect their interests, but also to impede users' legitimate rights to access those works for the common good – such as teaching and learning. She says that with TPM, developing countries are essentially locked out from the public domain.³⁷¹

Before the *WCT* came into existence, access to copyright goods in printed format, notably the right to translate and reproduce text books from developed countries by developing countries was considered a problem by developing countries. In 1971, in response to this concern, the Appendix³⁷² to the *Berne Convention* was formulated. Verhoef remarks that "developing countries have made limited use of

³⁶⁷ *WCT (1996)*.

³⁶⁸ Article 1 of the *WCT (1996)*. "This Treaty is a special agreement within the meaning of Article 20 of the Berne Convention for the Protection of Literary and Artistic Works, as regards Contracting Parties that are countries of the Union established by that Convention. This Treaty shall not have any connection with treaties other than the Berne Convention, nor shall it prejudice any rights and obligations under any other treaties".

³⁶⁹ *WIPO Summary of the WIPO Copyright Treaty*.

³⁷⁰ Article 10 of the *WCT (1996)*.

³⁷¹ Pistorius 2006 *PER/PELJ* 157.

³⁷² Appendix of the *Berne Convention (1886)* 24-29.

this Appendix, arguably because it contains compulsory licensing provisions so complex and arcane"³⁷³ that very few developing countries have been able or are willing to take advantage of it.³⁷⁴

It seems as if the *Berne Convention* has the inherent ability to deal with IKS-specific protection measures, but that the *WCT* and the Appendix to the *Berne Convention* do not succeed to the same extent to deal with IKS. The *WCT*, as is the case with the *Berne Convention*, requires works to be in a material form and many genera of IKS do not meet this requirement. The Appendix also fails IKS, because developing countries must avail IKS to the public domain in the same manner as they expect developed countries to avail teaching and learning material, as is intended by the Appendix.

3.3 Paris Convention

The *Paris Convention for the Protection of Industrial Property*³⁷⁵ (hereafter *Paris Convention*) applies to industrial property rights in the widest sense, including patents; industrial designs and utility models; trademarks, service marks, trade names; indications of source or appellations of origin; and the repression of unfair competition.³⁷⁶ South Africa acceded to the *Paris Convention* in 1947 and has ratified all subsequent amendments.³⁷⁷ The three substantive provisions of the Convention relate to national treatment, right of priority, and common rules. These provisions will be used as normative references when IKS is considered.

The following paragraphs are divided into patents, marks, and designs to facilitate the logical coherence between the *Paris Convention* and subsequent international law instruments that have built on it. For example, patents cannot be reviewed

³⁷³ Verhoef *The fair dealing doctrine in respect of digital books* 95; Also see Chon 2006 *UC Davis L Rev* 829.

³⁷⁴ Verhoef *The fair dealing doctrine in respect of digital books* 95; Also see Chon 2006 *UC Davis L Rev* 829; Also see Article IV(4) of the Berne Appendix. Note that with narrow exceptions, the Berne Appendix does not allow a country issuing a licence to print books domestically to extend that licence to the publication of books outside of the country with the purpose of then importing them back into the country.

³⁷⁵ *Paris Convention (1883)*.

³⁷⁶ Preamble of the *Paris Convention (1883)*.

³⁷⁷ WIPO http://www.wipo.int/treaties/en/remarks.jsp?cnty_id=312C.

without referring to the *Patent Cooperation Treaty*³⁷⁸ and the *Budapest Treaty*.³⁷⁹ Furthermore, trademarks cannot be reviewed without referring to the *Lisbon Agreement* and the *Trademark Law Treaty*.³⁸⁰ The *TRIPS Agreement* addresses GI, a term not to be confused with indications-of-source or appellations-of-origin (AOO).³⁸¹

3.3.1 Patents

From an IKS perspective, three legal aspects of patents in the *Paris Convention* deserve consideration. These are the personal rights of inventors, the novelty requirement (incorporating inventiveness, which relates to creations of the mind and discoveries), and lastly, the influence of GR on the patents.³⁸² Before addressing the legal aspects, one economic aspect of a patent must also be contextualised: the notion of a monopoly, which will become evident below.

3.3.1.1 Monopolies

Since the early days of the IP regime, much has been written about the monopolistic nature of IP – from Jefferson on patents, to Macaulay on copyright. Today, the consensus among IP scholars is that monopolies in the IP regime should be limited in time in the public interest. As Jefferson has said, IP consists of "ideas...freely spread from one to another over the globe, for the moral and mutual instruction of man".³⁸³ This has led Boyle to remark that monopolies may in some cases hinder rather than encourage innovation. Lobel studied the impact of patent-imposed monopolies on human capital in Silicon Valley. In summary, his arguments identify the legal uncertainty that patentees create by i) challenging patent claims; and ii) challenging inventorship based on employment contracts of highly skilled individuals who participate in active job-hopping and the corresponding diffusion of

³⁷⁸ Patent Cooperation Treaty (2001).

³⁷⁹ *Budapest Treaty* (1977).

³⁸⁰ Trademark Law Treaty (1994).

³⁸¹ See para 3.7; Unfair competition will be dealt with under the *TRIPS Agreement* in para 3.7.

³⁸² See paras 3.3.1.2-4.

³⁸³ See Boyle *The Public Domain* 21 and 41, where he quotes from Jefferson's letters on patents; Boyle also says the enclosure of IP (and land) is not merely unjust in itself but harmful in its consequences.

technological know-how across companies. Lobel also points out that the winner in these litigious matters is usually the company with enough financial resources and those who can demonstrate a corporate reputation for toughness in patent enforcement.³⁸⁴ These legal constraints on human mobility in one of society's most advanced IP regions threaten the dissemination of knowledge in the public domain. It is thus not difficult to agree with authors such as Brown that economic inequality is among role players in the IP field, and not the IP regime per se. This inequality contributes to groupings, such as IPLC clawing back on the public domain based on shared values and social embeddedness.³⁸⁵

The three aspects of patents in the *Paris Convention* relevant to IKS are now discussed.

3.3.1.2 Inventorship

The right of a natural person to be recognised as the inventor of a patentable invention is one of the most fundamental rights imposed upon countries by the *Paris Convention*, with article 4^{ter} stating that "the inventor shall have the right to be mentioned as such in the patent".³⁸⁶

This right stems from socio-economic and philosophical arguments, mainly because a patent is a monopoly. No democratic government can risk a situation where powers are abused, and the social contract between the state and its citizens is negated. The time-limited monopoly is therefore granted to a natural person to enable them to contribute in an innovative and creative manner to the technological advancement of society, without running the risk of being exploited by big corporates or the person's employer. The *quid pro quo* is that the patent must become a public document for use in the public domain, or as formally stated in the

³⁸⁴ Lobel 2015 *Texas Law Review* 803, 849-851; Lobel inter alia refers to Sergei Aleynikov's imprisonment after his employer, Goldman Sachs took him to court for e-mailing proprietary source code to his personal e-mail. The source code was developed under an open-source licence, which contributed to this high profile of this case. Aleynikov's attorney indicated that they will appeal the *Aleynikov v Goldman Sachs Grp, Inc (USA)* Civ No 2:12-cv-5994-KM-MAH (DNJ Mar 23, 2018) case (*Aleynikov* case).

³⁸⁵ Brown *Who owns native culture?* 67.

³⁸⁶ Article 4^{ter} of the *Paris Convention (1883)*.

Patent Cooperation Treaty (hereafter *PCT*),³⁸⁷ "to facilitate and accelerate access by the public to the technical information contained in documents describing new inventions".³⁸⁸ The public domain then serves as the platform where other innovators can freely improve upon the original patent. This system directly contributed to the four industrial revolutions – ending with the knowledge age and the technologically advanced society we currently live in.³⁸⁹

Within the social embeddedness of many IPLCs the rights of inventors are often seen as communal rights, posing various challenges to those inventors. The assignment of such a right by an inventor who happens to be a member of an indigenous community, to that indigenous community, may prove challenging as indigenous communities are not at present recognised as juristic persons in some countries.³⁹⁰

3.3.1.3 Novelty and inventiveness

In addition to inventorship, patents must also be novel (new) and inventive. Although the *Paris Convention* does not explicitly mention novelty, this is done by acknowledging the right of priority for inventors.³⁹¹ The *PCT* requires novelty and inventiveness as prerequisites for the granting of patents in member states.³⁹² The *PCT*'s introductory provisions confirm that the *PCT* shall not be interpreted as diminishing the *Paris Convention* and that the treaty aims to

³⁸⁷ *PCT (2001)*.

³⁸⁸ Preamble of the *PCT (2001)*.

³⁸⁹ Shibata 2016 <https://information.patentepi.org/2-16/history-partial-priority-system-paris-convention/>.

³⁹⁰ See para 5.13.3.6 where this matter is discussed in relation to South Africa.

³⁹¹ Article 4A(1) of the *Paris Convention (1883)*. "Any person who has duly filed an application for a patent, or for the registration of a utility model, or of an industrial design, or of a trademark, in one of the countries of the Union, or his successor in title, shall enjoy, for the purpose of filing in the other countries, a right of priority during the periods hereinafter fixed".

³⁹² Articles 33(1, 3) of the *PCT (2001)*. "33(1) The objective of the international preliminary examination is to formulate a preliminary and non-binding opinion on the questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), and to be industrially applicable. 33(3) For the purposes of the international preliminary examination, a claimed invention shall be considered to involve an inventive step if, having regard to the prior art as defined in the Regulations, it is not, at the prescribed relevant date, obvious to a person skilled in the art".

foster and accelerate the economic development of developing countries through the adoption of measures designed to increase the efficiency of their legal systems.³⁹³

Between these two instruments it is clear that an invention shall be considered novel if there is no evidence of it constituting prior art in the public domain.

This novelty requirement is problematic in IKS cases where the prior art is considered to be sacred or secret and hence not approved to be released into the public domain by the representatives of IPLC, even more so because the *PCT* also aims to facilitate the acquisition by developing countries of "technical knowledge and technology, including available published know-how".³⁹⁴

3.3.1.4 The Budapest Treaty

Many inventions have indeed emanated from discoveries and this acknowledgement is critical when TK and GR are analysed.

A discovery cannot be patented because it is not a creation of the mind but something that existed at the time of the discovery but was previously unknown. Therefore, after a coincidental discovery, nothing has changed apart from an associated increase in the body of knowledge known to humankind at that time. Discoveries are merely the first description of a natural law or a law derived from natural laws, from which an inventive step may arise.

Directly linked hereto are GR. From a South African perspective, the Rooibos, marula and buchu examples have already been discussed.³⁹⁵ These examples stress the reality within which the *Paris Convention* finds itself, namely that, as Fleming has discovered,³⁹⁶ a correlation exists with already known items (discoveries) to which

³⁹³ *PCT (2001)* 6; Also see A 1(2).

³⁹⁴ Article 50(3) of the *PCT (2001)*.

³⁹⁵ See para 1.1.

³⁹⁶ Sir Alexander Fleming discovered the anti-microbial properties of the mould *Penicillium notatum* in 1928; Only 12 years later his students were able to derive patentable subject matter from that discovery – the world's first antibiotic substance benzylpenicillin (Penicillin G); This discovery was undeniably linked to GR.

changes can be made. This means that the effect is improved in terms of quantity and/or quality and therefore may lead to a novel invention that is indeed patentable.

The international community responded to this reality with three instruments:

The first is the *Budapest Treaty*³⁹⁷ which deals with the deposit of micro-organisms for purposes of patent procedure. This requirement is important when matters such as the deposit of genetically modified organisms (GMO), or the origin of a micro-organism is relevant to the patentability of new micro-organisms. GR, such as micro-organisms, occur naturally and as such are not novel and, in many respects, merely a discovery. The *Budapest Treaty*, therefore, enables patent offices worldwide to establish novelty and eliminate the possibility of granting a patent that claims a naturally occurring micro-organism. This treaty is to be welcomed for any IKS-related patent protection where GR are present in that IPLCs' control of wild-type GR that originate from their land are equally important.

Second, the *CBD* provides for the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the utilisation of GR. This includes appropriate access to GR and appropriate transfer of relevant technologies, considering all rights over those resources and to technologies, and by appropriate funding.³⁹⁸

The third instrument is the *Nagoya Protocol*.³⁹⁹ This is a supplementary agreement to the *CBD*. It sets out the rules and mechanisms for access to GR and for fair and equitable benefit sharing in respect of the benefits arising from the utilisation of GR.⁴⁰⁰

³⁹⁷ Article 3(1)(a) *Budapest Treaty* (1977).

³⁹⁸ See para 3.5.3; Also see Preamble of the *CBD* (1992).

³⁹⁹ See para 3.5.3.3; Also see a 5(1) of the *Nagoya Protocol* (2010): "benefits arising from the utilization of genetic resources as well as subsequent applications and commercialization shall be shared in a fair and equitable way with the Party providing such resources that is the country of origin of such resources or a Party that has acquired the genetic resources in accordance with the Convention".

⁴⁰⁰ WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>. 1.

The significance of these instruments is not trivial for IKS. For example, South Africa is a signatory to all three instruments and has amended its *Patents Act* to provide for the disclosure of GR before a patent may be granted.⁴⁰¹ The implications of these three instruments on IKS in South Africa and how South Africa has responded are discussed later,⁴⁰² where the personal rights of inventors, the novelty requirement, the notion of discoveries and the influence of GR on patents are addressed.

3.3.2 Marks

For this thesis, the term 'marks' is used as an overarching term for trademarks, service marks, trade names, well-known marks, collective marks, indications of source or appellations of origin,⁴⁰³ and certification marks.⁴⁰⁴ Collective marks, indications of source or appellations of origin, and certification marks are relevant to IKS, as will be shown below. South Africa is not a party to the *Lisbon Agreement*. However, it is a party to the *Trademark Law Treaty*, which deals with indications of source or appellations of origin and certification marks. A thorough discussion is necessary for a deeper understanding of how these instruments influence the discourse on IKS, not only in South Africa but worldwide.

3.3.2.1 Lisbon Agreement

The *Lisbon Agreement* (1958)⁴⁰⁵ is one of a few revisions of the *Paris Convention*. The Agreement essentially provides for the protection of appellations of origin against any "usurpation or imitation or...used in translated form".⁴⁰⁶ Currently, this WIPO-negotiated instrument, with only 27 countries party to it, is considered by

⁴⁰¹ Section 32(6) of the *Patents Act*, which now complies with the requirements of the Budapest Treaty (1977).

⁴⁰² See paras 3.5 and 5.9.

⁴⁰³ Articles 1(2), 6^{bis}, 7^{bis} and 10 of the *Paris Convention* (1883).

⁴⁰⁴ Certification marks are regulated by the *Trademark Law Treaty* (1994).

⁴⁰⁵ *Lisbon Agreement* (1958).

⁴⁰⁶ Article 3 of the *Lisbon Agreement* (1958). "Protection shall be ensured against any usurpation or imitation, even if the true origin of the product is indicated or if the appellation is used in translated form or accompanied by terms such as 'kind', 'type', 'make', 'imitation', or the like".

many as a regional instrument concentrated in the Mediterranean world.⁴⁰⁷ South Africa is not a party to the *Lisbon Agreement*.⁴⁰⁸

The French influence on this instrument is undeniable, with AOO being a direct translation of *appellation d'origine controlee (AOC)*.⁴⁰⁹ The French interpretation of *AOC* allows for obligatory rules to ensure that the *terroir* aspects are not diluted and quality is preserved, which are two aspects of equal importance to IPLC. These rules include the permitted grape varieties within a region, the minimum levels of alcohol, production methods, maximum yield levels, and harvesting methods,⁴¹⁰ all which lead to the importance of the definition of AOO in this agreement, which is:

The geographical denomination of a country, region, or locality, which serves to designate a product originating therein, the quality or characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors.⁴¹¹

Torsen notes how the French perceive the concept:

It is the combination of the land and the unique traditional practices of the people who tend to it that results in the unique wine bearing the *appellation d'origine controlee*.⁴¹²

She then proceeds to say, "the same could be said of [TCE],⁴¹³ except that there is no aspect of commercialization involved".⁴¹⁴ This comment by Torsen is important in that she draws the reader's attention to the fact that the French, as a civil law Western country, like IPLC, also grapples with the "combination of respect, protection, recognition and privacy".⁴¹⁵ From her work it is reasonable to say that the desires of French farmers and winegrowers⁴¹⁶ are indeed not entirely different

⁴⁰⁷ Gervais "Traditional Innovation and the Ongoing Debate on the Protection of Geographical Indications" 124.

⁴⁰⁸ *Lisbon Agreement (1958)*.

⁴⁰⁹ Torsen 2006 *American Journal of Comparative Law* 185.

⁴¹⁰ Drahos "Sunshine in a Bottle? Geographical Indications, the Australian Wine Industry, and the Promise of Rural Development" 264.

⁴¹¹ Article 2(1) of the *Lisbon Agreement (1958)*.

⁴¹² Torsen 2006 *American Journal of Comparative Law* 185.

⁴¹³ Note the interchangeable use of TCE and folklore, as defined in the glossary.

⁴¹⁴ Torsen 2006 *American Journal of Comparative Law* 185.

⁴¹⁵ Torsen 2006 *American Journal of Comparative Law* 186.

⁴¹⁶ Torsen 2006 *American Journal of Comparative Law* 185; According to Torsen, it is the combination of the land and the unique traditional practices of the people who tend to it that results in the unique wine bearing the *appellation d'origine controlee*.

to the AOO of IPLC who conceive natural (the environment) and human factors as mutually inclusive.

Interestingly, Torsen then undertakes a brief excursion to Russia's perceived ideas on AOO, before she reverts to the French approach to the *droit moral* of authors. Torsen argues that Russia erred when it started to register several 'old world' industries as AOO, such as Gorodets' paintings,⁴¹⁷ or for that matter, the Egyptians who want to enforce copyright in their 4 500-year-old ancient pyramids against recent replicas that are disguised as hotels in Las Vegas, while copyright is by nature territorial (for some this seems like what IPLC are trying to achieve).⁴¹⁸ Looking at the *droit moral* of authors and creators, the French are leading the way. Torsen, quoting others, states that:

Copyright law is explicitly divided into economic rights and moral rights, and the moral right trumps that of the economic right. Furthermore, the moral right is perpetual, inalienable, non-seizable and universal.⁴¹⁹

From this French perspective on *droit moral* she then advocates for

a workable model law for TCE ...with ... a type of protection that ensures a specific bundle of rights that are suited to the cultures from which they come.⁴²⁰

Such a workable model can indeed be achieved if one carefully follows Torsen's arguments on the importance of *droit moral* when she refers to well-reported court cases on AOO in countries such as Australia⁴²¹ and the USA. In the context of AOO reference to the *Crazy Horse* case⁴²² in the USA is warranted, which follows below.

3.3.2.1.1 Case study: *Tasunke Witko* aka *Crazy Horse*

The *Crazy Horse* case is dealt with as a case study because the matter was eventually settled out of court early in 2004. The case is a fascinating one to

⁴¹⁷ Torsen 2006 *American Journal of Comparative Law* 186.

⁴¹⁸ Harms 2009 *THRHR* 176.

⁴¹⁹ Torsen 2006 *American Journal of Comparative Law* 187.

⁴²⁰ Torsen 2006 *American Journal of Comparative Law* 195.

⁴²¹ See para 4.2.6.1 where the *Yumbulul* case is comprehensively discussed; The case briefly entails the Galpu clan of Australia suing to prevent a bank from reproducing its design of a Morning Star pole on an Aus\$10 bank note.

⁴²² *Estate of Tasunke Witko aka Crazy Horse v Hornell Brewing Co (USA)* [2001] 156 F Supp 2d 1092 (*Crazy Horse* case).

illustrate the importance of the relationship between AOO, TCE of IPLC and *droit moral*, albeit a deceased tribesman's estate on behalf of his community. In the case it is stated that

Crazy Horse is the renowned and beloved leader of the Lakota Sioux who dedicated his life to protecting the cultural ways of his people and who vigorously opposed the use of alcohol by the Lakota people. The descendants have only used the Crazy Horse name in limited circumstances in honor of the sacred trust that his person, name, and spirit not be exploited.⁴²³

Hornell Brewing Co, the defendant, used the name 'Crazy Horse' for malt liquor, which led to the litigation on behalf of the plaintiff, namely the estate of Crazy Horse. In this regard, the plaintiff based its argument on defamation and negligent infliction of emotional distress, among other issues, including privacy. The USA Congress and the President at that time intervened and found the name of Crazy Horse to be fundamentally wrong and tried to settle the matter to obviate the need for legislation. The freedom of speech doctrine eventually led to the New York Federal Court overturning the national ban on the use of Crazy Horse.⁴²⁴

Crazy Horse attempts to invoke AOO and *droit moral* in a communal manner in that the late tribal leader wanted to proffer the right to be left alone to his community. This is commendable since "indigenous art and cultural expression is interwoven with indigenous identity - both reinforce and define the other".⁴²⁵ The Crazy Horse case study brings disturbing arguments to the fore. As Torsen said:

If a tribe is granted something of a right to be let alone - or to carry on its traditions autonomously without interference that tribe's TCEs, inextricably tied to that tribe's identity, should acquire a protective legal coating against misappropriation, derogation or uninvited scrutiny.⁴²⁶

3.3.2.2 The difference between AOO and GI as used in TRIPS

After this case study and before a move to the *TRIPS Agreement*,⁴²⁷ the difference between AOO and GI, as is used by the *TRIPS Agreement* needs to be clarified,

⁴²³ *Estate of Tasunke Witko aka Crazy Horse v Hornell Brewing Co (USA)* para 1099.

⁴²⁴ Torsen 2006 *American Journal of Comparative Law* 194.

⁴²⁵ Torsen 2006 *American Journal of Comparative Law* 194.

⁴²⁶ Torsen 2006 *American Journal of Comparative Law* 194.

⁴²⁷ See para 3.7.

because it is necessary to ascertain which one, if not both, is best suited to protect IKS. Gervais⁴²⁸ attempts to differentiate: AOO distinguishes products produced in a designated geographical location according to regulations or "local, constant and trusted usage";⁴²⁹ while GI is used in accordance with the *TRIPS Agreement*, and

adds a measure of semiotic flexibility by encompassing any indication (denomination or otherwise) that would point to a particular geographic origin as long as a certain quality or characteristic (and/or reputation) is attributable to that origin.⁴³⁰

This view is supported, inter alia, by the South African IP law firm Adams & Adams. In its submission to government on the IP Consultative Framework of South Africa, Adams & Adams strongly advocates that South Africa accedes to this international instrument that deals specifically with AOO.⁴³¹ Adams & Adams says this because it will assist South Africa's compliance with the *TRIPS Agreement* provisions on GI,⁴³² bearing in mind that there is a subtle, yet crucial difference between the definitions of AOO,⁴³³ as used in the *Lisbon Agreement*, and GI, as used in the *TRIPS Agreement*.⁴³⁴ According to Adams & Adams, regarding the definitions of AOO and GI,

[t]he negative feature of this definition [AOO] is that it only covers geographical names (so that a name such as 'Rooibos' would not qualify); the positive feature is that it recognises not only the natural factors of the region but also human factors to be attributable for the characteristics of the product,⁴³⁵ [while for GI] the negative feature of this definition is that it only recognises the geographical factor [and not human factors] as attributable for the characteristics of the product; the positive feature is that it covers all indications of origin and not only geographical names.⁴³⁶

⁴²⁸ Gervais "Traditional Innovation and GI" 124.

⁴²⁹ Gervais "Traditional Innovation and GI" 125.

⁴³⁰ Gervais "Traditional Innovation and GI" 125.

⁴³¹ Adams & Adams *Adams & Adams' submission on the Intellectual Property Consultative Framework*, 2016 31.

⁴³² Adams & Adams *Submission on the Intellectual Property Consultative Framework*, 2016 31.

⁴³³ Adams & Adams *Submission on the Intellectual Property Consultative Framework*, 2016 35; GI is defined in article 22(1) of the TRIPS Agreement.

⁴³⁴ Adams & Adams *Submission on the Intellectual Property Consultative Framework*, 2016 35; The Lisbon Agreement defines AOO.

⁴³⁵ Adams & Adams *Submission on the Intellectual Property Consultative Framework*, 2016 35.

⁴³⁶ Adams & Adams *Submission on the Intellectual Property Consultative Framework*, 2016 35.

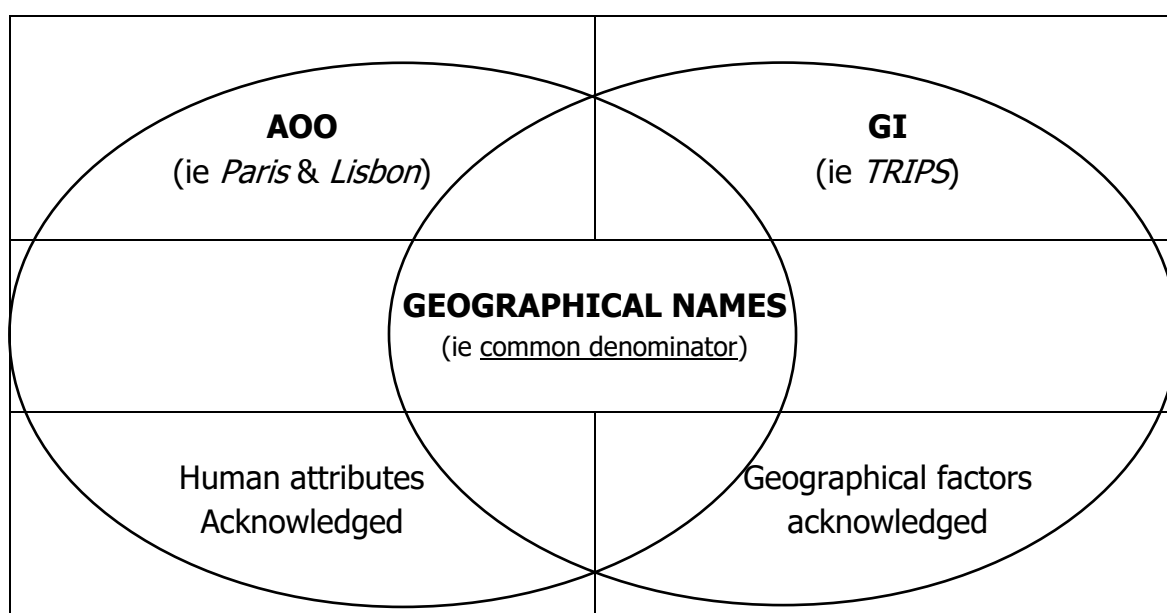


Figure 3.1: Overlap between AOO and GI

For ease of reference the respective definitions are provided, together with the latest effort by the South African legislator to harmonise these two terms:

Paris & Lisbon (AOO): In this Agreement, 'appellation of origin' means Geographical denomination of a country, region, or locality, which serves to designate a product originating therein, the quality or characteristics of which are due exclusively or essentially to the geographic environment, including natural and human factors.⁴³⁷ (emphasis added)

TRIPS (GI): Geographical Indications are, for the purposes of this Agreement, indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.⁴³⁸ (emphasis added)

SA Trade Marks Act: Geographical indication in as far as it relates to indigenous cultural expressions or knowledge, means an indication which identifies goods or services as originating in the territory of the Republic or in a region or locality in that territory, and where a particular quality, reputation or other characteristic of the goods or services is attributable to the geographical origin of the goods or services, including natural land human factors.⁴³⁹ (emphasis added)

⁴³⁷ Article 2(1) of the *Lisbon Agreement (1958)*.

⁴³⁸ Article 22 of the *TRIPS Agreement (1994)*.

⁴³⁹ Section 8(f) van die *IPLA Act*; This aims to amend section 2 of the *Trademarks Act*.

Gervais also analyses the *Geneva Act* (together with the *Lisbon Agreement*, the *Lisbon System*),⁴⁴⁰ to which South Africa is not a signatory. The *Geneva Act* updates and enhances the *Lisbon Agreement*, which applies only to AOO. The *Geneva Act* extends that protection to GI alongside AOO, better to consider existing national or regional systems for the protection of distinctive designations in respect of origin-based quality products. He points out that to date, no common law jurisdiction is party to the *Lisbon Agreement* (or the *Geneva Act*), mostly because common law countries use existing trademarks, collective marks, and certification marks entrenched under the *Paris Convention* to protect geographic symbols and names measures for the protection of GI. He also points out that the deep roots in the *terroir* are universal in that, in his words, the old world (Europe), the new world (USA), as well as developing countries agree that *terroir* encapsulates a blend of land, tradition, and human knowledge.⁴⁴¹ This universal appreciation of *terroir* is encouraging from an IKS perspective.

Despite this encouraging agreement on *terroir*, the deep divide between the trade and development goals of developing and developed countries, as well as the fundamentally different legal systems of common law countries and civil law countries all add up to a system where the *TRIPS Agreement*, the *Paris Convention*, and the *Lisbon System* fail to harmonise GI and AOO. Gervais gives an example relevant to IKS: Several developing nations consider GI as a way of protecting and globally marketing their rural and traditional products at a higher price, which they assert would lead to "development from within", that is, "an alternative development strategy that prioritizes local autonomy and broad, community-wide development goals".⁴⁴²

Gervais also touches on genericide, which is the loss of an identification when a mark becomes generic and is thus unable to function as a GI.⁴⁴³ Although the *Lisbon*

⁴⁴⁰ *Geneva Act (2015)*.

⁴⁴¹ Gervais "A Look at the Geneva Act of the Lisbon Agreement: A Missed Opportunity?" chapter 5, 122-123.

⁴⁴² Gervais "A Look at the Geneva Act of the Lisbon Agreement: A Missed Opportunity?" 124.

⁴⁴³ Gervais "A Look at the Geneva Act of the Lisbon Agreement: A Missed Opportunity?" 132.

System to some extent provides for such measures,⁴⁴⁴ the implication for IKS is far-reaching because many TCE would be considered as falling within the public domain and hence not susceptible to GI. Gervais's support of geographic certification marks (GCMs), because there is a collective goodwill linked to a region or locality to address these concerns, is commended in that GCMs might be a solution to protecting all three *genera* of IKS.

Before we move away from GI the following case study illustrates how it is possible to harmonise GI, which will assist with the GR discourse.

3.3.2.2.1 Case study: The Chiemsee case

The German *Chiemsee* case⁴⁴⁵ confirmed that, in the public interest, a GI cannot necessarily be owned by one person, community or juristic person. Chiemsee is Germany's largest lake with many companies having their businesses located in the Chiemsee region. Many companies use Chiemsee, or images of the lake in some form or the other, in their trademarks. In the *Chiemsee* case, a German company, Windsurfing Chiemsee Produktions, took its competitors to court for allegedly using the word Chiemsee, which is used in many of their registered trademarks. The defendants argued that Chiemsee is a generic name which resides in the public domain.

The German court referred the matter to the Court of Justice of the European Union (CJEU) to rule on certain articles of the EU's *Council Directive No 89/104/EEC*, which aims, in the public interest, to prevent the registration of trademarks which may serve to designate the geographic origin of the categories of goods for which registration of the trademark is applied.⁴⁴⁶ The CJEU ruled that the registration of a

⁴⁴⁴ Article 6 of the *Lisbon Agreement (1958)*.

⁴⁴⁵ *Windsurfing Chiemsee Produktions- und Vertriebs GmbH (WSC) v Boots- und Segelzubehör Walter Huber and Franz Attenberger (CJEU)* ECLI:EU:C:1999:230 (*Chiemsee* case).

⁴⁴⁶ Articles 3(1)(c), 3(3) and 6(1)(b) of *Council Directive 89/104/EEC (EU)* 89/104/EEC. "3(1)(c). Trade marks which consist exclusively of signs or indications which may serve, in trade, to designate the kind, quality, quantity, intended purpose, value, geographical origin, or the time of production of the goods or of rendering of the service, or other characteristics of the goods o(d) trade marks which consist exclusively of signs or indications which have become customary in the current language or in the bona fide and established practices of the trade. 3(3). A trade mark shall not be refused registration or be declared invalid in accordance with

geographic place name as a trademark does not in itself prevent its use or registration by other companies.⁴⁴⁷

The *Chiemsee* case clarifies many GI-related questions in general but falls short to address TCE which would be considered as falling within the public domain in many countries and hence not susceptible to GI. The *Chiemsee* case was heard in Germany and did not consider IKS, but its clear ruling on how to interpret GI, together with the rationale behind Gervais's support of GCMs, may provide some answers pertaining to the best way to protect IKS by means of trademarks.

In summary, the two case studies, as well as the nuanced approaches of GI and AOO discussed above, underline the complexities that the *Paris Convention* and its fellow instruments face to address IKS-related challenges.

The discussion about industrial property protected under the *Paris Convention* will now move from marks to industrial designs.

3.3.3 Industrial designs

Industrial designs are recognised as one of the distinct industrial property classes in the *Paris Convention*,⁴⁴⁸ which protect the aesthetic and functional features of two- or three-dimensional objects. The Convention grants very similar rights to designs

paragraph 1 (b), (c) or (d) if, before the date of application for registration and following the use which has been made of it, it has acquired a distinctive character. Any Member State may in addition provide that this provision shall also apply where the distinctive character was acquired after the date of application for registration or after the date of registration. 6(1)(b). Indications concerning the kind, quality, quantity, intended purpose, value, geographical origin, the time of production of goods or of rendering of the service, or other characteristics of goods or services".

⁴⁴⁷ *Windsurfing Chiemsee Produktions- und Vertriebs GmbH (WSC) v Boots- und Segelzubehör Walter Huber and Franz Attenberger (CJEU)* I2833; Article 3(1)(c) does not prohibit the registration of geographical names as trade marks solely where the names designate places which are, in the mind of the relevant class of persons, currently associated with the category of goods in question; it also applies to geographical names which are liable to be used in future by the undertakings concerned as an indication of the geographical origin of that category of goods. Article 3(3) is to be interpreted as meaning a trade mark acquires distinctive character following the use which has been made of it where the mark has come to identify the product in respect of which registration is applied for as originating from a particular undertaking and thus to distinguish that product from goods of other undertakings.

⁴⁴⁸ Article 1(2) of the *Paris Convention (1883)*. The Hague Agreement Concerning the International Deposit of Industrial Designs (1925) regulates the depositing of industrial designs. South Africa is not a contracting party to the *Hague Agreement (1925)*.

than to marks and patents, with the duration of projection slightly shorter.⁴⁴⁹ Industrial designs find application in various products in trade and industry, such as packaging, containers, furniture, household goods, lighting equipment, jewellery, and textiles.

The development of international design law goes hand-in-hand with the history of the textile industry, dating back to the silk route of the 15th century. Ironically, two historic developments severely impacted the ancient textile industry. The one was the ever-changing French and European fashion industry;⁴⁵⁰ the other the early stages of the first industrial revolution during which the European countries started to develop their own weaving and spinning techniques, all backed by patents and industrial designs dating from as early as 1733.⁴⁵¹ During this period, the British even sent their artisans to the heartland of textiles in Bengal, India, where there was technology- and skills-transfer to the detriment of the poor weavers and spinners of India.⁴⁵²

These historical developments around industrial designs set the scene for important discussions on the way handicraft and other designs/products are currently emanating from TCE, and how country-specific design laws are dealing with the rights of IPLC in this regard.⁴⁵³ This paragraph will therefore not discuss designs to the same extent as patents and marks.

3.3.4 Conclusion

In conclusion, the *Paris Convention* and its fellow instruments that were formulated at later stages all provide for adequate protection of industrial property, be it patents, marks or designs. Nuanced approaches by civil law and common law

⁴⁴⁹ Article 1(2) of the *Paris Convention (1883)*.

⁴⁵⁰ Kulke and Rothermund *A History of India* 209.

⁴⁵¹ Bellis 2019 <https://www.thoughtco.com/textile-machinery-industrial-revolution-4076291>.

⁴⁵² Kulke and Rothermund *A History of India* 232.

⁴⁵³ See para 5.13.1 where South Africa's legal developments in this regard are discussed.

countries, notably on how *terroir* is perceived, make these instruments difficult to harmonise in respect of IKS. Country-specific approaches are therefore required.⁴⁵⁴

The next international instrument that will be discussed is the *Rome Convention* which has specific relevance for the performers and producers of TCE.

3.4 Rome Convention

The *Rome International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations*⁴⁵⁵ (hereafter *Rome Convention*) secures protection in performances for performers, in phonograms for producers of phonograms, and in broadcasts for broadcasting organisations. Performers' rights are essentially neighbouring rights, with many similarities to the rights of an author (creator of a copyright protectable work) but are not necessarily connected to the rights of such author.⁴⁵⁶

South Africa is not a signatory to the *Rome Convention*, but nevertheless enacted the *Performers' Protection Act*⁴⁵⁷ in 1976 to give effect to the desire of performing artists and others to be protected while performing literary and artistic works of third parties, which works are protected by the *Berne Convention*.

While the *Rome Convention* protects performances of literary or artistic works only, the *WPPT*⁴⁵⁸ extends IP rights to expressions of folklore.⁴⁵⁹ In IKS, the performers and producers of TCE are involved with sacred and secret ceremonies, rituals and other traditional customs and therefore this treaty is of more relevance than the *Rome Convention*, its mother instrument, to IKS.

⁴⁵⁴ See Chapter 4 where, for example, Australia (a common law country) and Mexico (civil law) are discussed.

⁴⁵⁵ International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations (1961).

⁴⁵⁶ Anderson *Indigenous/Traditional Knowledge & Intellectual Property* 23.

⁴⁵⁷ *Performers' Protection Act* 11 of 1967.

⁴⁵⁸ *WPPT* (1996).

⁴⁵⁹ Anderson *Indigenous/Traditional Knowledge & Intellectual Property* 23.

3.4.1 *WIPO Performances and Phonograms Treaty*

In Chapter 1 of the treaty, it is made clear that the *WPPT* merely supplements the *Rome Convention* in the digital environment and that the rights of authors of literary and artistic works shall remain to be protected in terms of the *Berne Convention*.⁴⁶⁰ The treaty's inclusion of folklore is also important because, according to Taubman, it recognises the economic and moral rights over performances of folklore, even in digital format.⁴⁶¹ *WPPT* concerns itself with the equitable remuneration of performers and producers, particularly in the digital environment. More specifically, the *WPPT* deals with the rights of two kinds of beneficiaries – performers (such as actors, singers, musicians, etc); and producers of phonograms (persons or legal entities that take the initiative and have the responsibility for the fixing of sounds).⁴⁶²

One of the reasons for the recognition of earlier treaties such as the *Rome Convention* stems from the well documented minutes of the debates which preceded the Stockholm proceedings of the 1967 amendments of the *Berne Convention*. According to Masouyé, developing countries lobbied to entrench 'expressions of folklore' in article 15(4) of the *Berne Convention*. The draftsmen resisted and eventually only referred to 'unknown authors' because, in their wisdom, proprietary rights in expressions of folklore cannot be given to a single author.⁴⁶³ Article 15(4) provides:

In the case of unpublished works where the identity of the author is unknown, but where there is every ground to presume that he is a national of a country of the Union, it shall be a matter for legislation in that country to designate the competent

⁴⁶⁰ Articles 1(1,2) of the *WPPT* (1996).

⁴⁶¹ Anderson *Indigenous/Traditional Knowledge & Intellectual Property* 23.

⁴⁶² Article 1 of the *WPPT* (1996). "Performers and producers of phonograms shall enjoy the right to a single equitable remuneration for the direct or indirect use of phonograms published for commercial purposes for broadcasting or for any communication to the public".

⁴⁶³ Masouyé *WIPO Guide to Berne* 95, paras 15.9 and 15.10; "The main purpose of this provision is to cover works of what is called "folklore" although the expression, very difficult to define, is not used in the Convention. It is the second of the Stockholm (1967) additions, confirmed by the Paris Revision (1971). The paragraph lays down several conditions: (i) the work must be unpublished in the sense of Article 3(3) [of Berne]; (ii) its author must be unknown: folklore is, by definition, attributable to no author. The names of those responsible for it are lost in the mists of time; (iii) there must nevertheless be every reason to believe this unknown author to be a national of a given Union country; the Convention creates a sort of presumption".

authority which shall represent the author and shall be entitled to protect and enforce his rights in the countries of the Union.⁴⁶⁴ Emphasis added.

This was not acceptable to developing countries, and with the acceptance of the *WPPT*, article 2(a) now includes TCE, or as the treaty refers to it, expressions of folklore.

"Performers" are actors, singers, musicians, dancers, and other persons who act, sing, deliver, declaim, play in, interpret, or otherwise perform literary or artistic works or expressions of folklore.⁴⁶⁵ (own emphasis)

South Africa followed suit and in 2002 amended its *Performers' Protection Act* to include TCE.⁴⁶⁶ During a WIPO Diplomatic Conference, a statement was adopted concerning article 15 of the *Berne Convention*, which provides:

[I]t is understood that Article 15 does not prevent the granting of the right conferred by this article to performers of folklore and producers of phonograms recording folklore where such phonograms have not been published for commercial gain.⁴⁶⁷

The last part of the statement relating to 'folklore that is published for commercial gain' speaks to folklore that is performed during sacred and secret ceremonies, rituals and other traditional customs and where the IPLC are not willing to place their ceremonies, rituals and other traditional customs in the public domain. This is problematic, because these international law instruments are available to IPLC, but it seems as if their social embeddedness and underlying fear of being appropriated remain more important than the dissemination of knowledge in the public domain.

This issue is closely related to the recognition of these performers, which will now be discussed in the paragraph below on the *Beijing Treaty*.

⁴⁶⁴ Article 15(4) of the *Berne Convention (1886)*.

⁴⁶⁵ Article 2(a) of the *WPPT (1996)*.

⁴⁶⁶ Section 1(1) of the *PP Act*. "'literary and artistic works' includes musical, dramatic and dramatico-musical works and expressions of folklore".

⁴⁶⁷ Article 13 of the *WPPT (1996)*.

3.4.2 *Beijing Treaty*

The *Beijing Treaty*⁴⁶⁸ deals, among others, with the rights of performers to be recognised as the performers while performing a literary or artistic work created or first fixed in the course of a performance.⁴⁶⁹ The entrenchment of the performer's economic right in the treaty extends to moral rights where a need arose to recognise the performer's right to be identified as the performer of their performances.⁴⁷⁰ This is a universal desire and not IKS-specific – imagine a film where the main actors are acting without any emotion, or a pianist accompanies a symphony orchestra without any emotion. Expressions of folklore are also, in line with the *WPPT*, entrenched in the definition of performers, where article 2(a) states that

'Performers' are actors, singers, musicians, dancers, and other persons who act, sing, deliver, declaim, play in, interpret, or otherwise perform literary or artistic works or expressions of folklore.⁴⁷¹

The *Beijing Treaty*, together with the *WPPT*, provides adequate protection for TCE that are performed live. The *Beijing Treaty*, as is the case with the *WPPT*, does not provide answers to folklore that is involved with sacred and secret ceremonies, rituals and other traditional customs and where the IPLCs are not willing to place their ceremonies, rituals and other traditional customs in the public domain.

From the *Rome Convention* and its fellow instruments one can see that performers of folklore are adequately protected, be it a traditional ceremony or any other performance. The challenge related to sacred and secret ceremonies remains, but the instruments that were discussed leave adequate room for country-specific solutions.

⁴⁶⁸ Beijing Treaty on Audiovisual Performances (2012).

⁴⁶⁹ *Beijing Treaty (2012)* 4, footnote 3.

⁴⁷⁰ Article 1 of *Beijing Treaty (2012)*. "Independently of a performer's economic rights, and even after the transfer of those rights, the performer shall, as regards his live performances or performances fixed in audiovisual fixations, have the right: to claim to be identified as the performer of his performances, except where omission is dictated by the manner of the use of the performance; and to object to any distortion, mutilation or other modification of his performances that would be prejudicial to his reputation, taking due account of the nature of audiovisual fixations".

⁴⁷¹ Article 2(a) of the *Beijing Treaty (2012)*.

3.5 Genetic Resources Instruments

3.5.1 Introduction

In 1968 Hardin, a scientist and environmentalist, famously predicted in his article "Tragedy of the Commons" that the unrestrained use of a common resource could lead to its overuse and depletion.⁴⁷² Some 30 years later, Heller and Eisenberg, both legal scholars, challenged Hardin and introduced the anti-commons with their hypothesis that the "unfettered exercise of individual property rights could lead to an equally tragic underutilization of resources".⁴⁷³ Contreras, a human geneticist, recently attempted to unravel this predicament with the public domain in the world of natural scientists, where access to upstream patents and GR is required to enable downstream innovation.⁴⁷⁴ Boyle also appreciates the complexities around the environment and the public domain, when he states that:

In one very real sense, the environmental movement invented the environment so that farmers, consumers, hunters and birdwatchers could all discover themselves as environmentalists.⁴⁷⁵

Contreras and Boyle's⁴⁷⁶ insights are constructive when GR are analysed from a TK and TCE point of view since many IKS-related issues are like those of the natural scientists mentioned. The following paragraphs on international law instruments related to GR must be approached with due consideration to the views of natural scientists.

3.5.2 International Convention for the Protection of New Varieties of Plants

The *International Convention for the Protection of New Varieties of Plants* (hereafter *UPOV Convention*)⁴⁷⁷ provides and promotes an effective system of plant variety protection to encourage the development of new varieties of plants for the benefit

⁴⁷² Hardin 1968 *Science* 1244.

⁴⁷³ Contreras 2018 *Science* 1. Contreras refers to Hardin, Heller and Eisenberg in his article.

⁴⁷⁴ Contreras 2018 *Science* 1-3.

⁴⁷⁵ Yu 2019 *Intellectual Property Law Review* 23, where Yu quotes from Boyle's work dated 1997.

⁴⁷⁶ Boyle 2003 *Law & Contemp Probs* 41. Boyle says that the tragedy of the IP commons never happened because "a gene sequence, an MP3 file, or an image may be used by multiple parties; my use does not interfere with yours".

⁴⁷⁷ International Convention for the Protection of New Varieties of Plants (1961).

of society. The criteria to be satisfied to obtain breeders' rights are that the variety must be new, distinct, uniform, and stable.⁴⁷⁸ Novelty and distinctiveness are of relevance to IKS and GR. Like the novelty requirements for patents, a new variety must be distinguishable from any other variety the existence of which is a matter of common knowledge – in other words, discoveries and naturally occurring plants cannot obtain protection.

The *UPOV Convention* is not oblivious to the recent developments pertaining to the *CBD* and the *Nagoya Protocol*. In this regard the *UPOV Convention* confirmed its support for an "international regime on access and benefit sharing under the *CBD* that is mutually supportive with the UPOV Convention".⁴⁷⁹

The *UPOV Convention* is also in favour of an accessible public domain for the benefit of society. In this regard, it stated in a report to the Secretariat of the *CBD* that:

UPOV considers that plant breeding is a fundamental aspect of the sustainable use and development of genetic resources. It is of the opinion that access to genetic resources is a key requirement for sustainable and substantial progress in plant breeding. The concept of the 'breeder's exemption' in the UPOV Convention, whereby acts done for the purpose of breeding other varieties are not subject to any restriction, reflects the view of UPOV that the worldwide community of breeders needs access to all forms of breeding material to sustain greatest progress in plant breeding and, thereby, to maximize the use of genetic resources for the benefit of society.⁴⁸⁰

The *UPOV Convention's* strong focus on IP protection for plant varieties does not allow local farmers to use seeds that were saved during the harvest season or that of protected varieties. As a result, countries with strong farmers' rights, such as India, cannot comply with all aspects of the *UPOV Convention* – this international law instrument may therefore not be useful for IKS purposes.

⁴⁷⁸ Articles 5-9 of the *UPOV Convention (1961)*.

⁴⁷⁹ UPOV 2009 https://www.upov.int/about/en/key_issues.html.

⁴⁸⁰ UPOV *Comments of UPOV on CBD Study on the relationship between international instruments pertaining to GR* 15.

3.5.3 Convention on Biological Diversity

3.5.3.1 Introduction to the Convention on Biological Diversity

The *CBD*,⁴⁸¹ which South Africa ratified in 1995, was inspired by the world's growing commitment to sustainable development. Its main objective is stated in article 1, is the conservation, access to and sustainable use of biological diversity.⁴⁸² The *CBD* is one of the first international law instruments to recognise

the close and traditional dependence of many indigenous and local communities embodying traditional lifestyles on biological resources, and the desirability of sharing equitably benefits arising from the use of traditional knowledge, innovations and practices relevant to the conservation of biological diversity and the sustainable use of its components.⁴⁸³

Birnie points out that this recognition of indigenous people's dependence on GR is merely mentioned in the ecocentric preambular recitals to the *CBD*, which does not create obligations for signatory states.⁴⁸⁴ In the more substantive anthropocentric articles of the *CBD*, the only article in which reference to IKS is made is article 8(j).⁴⁸⁵ This article does, however, entrench benefit sharing, subject to national legislation. Furthermore, according to Birnie, the *CBD*'s language is ambiguous because "international law on indigenous peoples and the protection of the environment of indigenous peoples remains controversial".⁴⁸⁶

Helfer is of the view that the *CBD* indeed achieves its objective of balancing the interest of biodiversity-poor but technology-rich industrialised countries on the one

⁴⁸¹ *CBD (1992)*.

⁴⁸² Article 1 of the *CBD (1992)*. "The conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding".

⁴⁸³ Preamble of the *CBD (1992)*.

⁴⁸⁴ Birnie, Boyle and Redgwell *International Law and the Environment* 619.

⁴⁸⁵ Article 8(j) of the *CBD (1992)*. "Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices".

⁴⁸⁶ Birnie, Boyle and Redgwell *International Law and the Environment* 626.

hand, with those interests of biodiversity-rich but technology-poor countries on the other hand. He states that the *CBD* allows "industrialized countries to support the transfer of proprietary technologies to developing states as a *quid pro quo* for access".⁴⁸⁷ Of note, though, is Helfer's comment that developing countries initially treated all PGR as falling within the public domain and challenged the proprietary rights of others, regardless of whether the PGRs are in their natural state growing in the wild, in a seed repository, or genetically modified.⁴⁸⁸ This approach changed in response to the expansion of the IP regimes worldwide. Now, according to him, wild-type PGR are subject to the sovereignty of the countries from which the PGRs originate, genetically modified PGR are eligible for patent and/or plant breeders' rights protection, while PGR located in seed repositories are regarded as remaining in the public domain as "the common heritage of humanity".⁴⁸⁹ He does concede that the boundary between PGR in the public domain and those that could be privatised is not clear enough and leads to disputes.

3.5.3.2 The public domain treatment of genetic resources

The control of and access to GR are of utmost importance to both IPLC, and major industries, such as biotechnology, pharmaceuticals, and agriculture. Birnie points out that access to GR for major industries is important for three uses:

species are used to produce naturally occurring chemicals and compounds (eg, rubber);

species' natural chemicals can provide sufficient information for chemists to synthesise the active compounds (eg, aspirin); and

genes of species can be isolated and sequenced as source for genetically modified organisms through implantation.⁴⁹⁰

IPLCs' control of wild-type GR originating from their land is equally important. In this regard, some parts of article 15(5) of the *CBD* is of relevance and reads:

⁴⁸⁷ Helfer 2004 *Yale J Int'l L* 28.

⁴⁸⁸ Helfer 2004 *Yale J Int'l L* 34.

⁴⁸⁹ Helfer 2004 *Yale J Int'l L* 35.

⁴⁹⁰ Birnie, Boyle and Redgwell *International Law and the Environment* 803.

Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.⁴⁹¹

What this article thus sets out to do regarding IKS, is to acknowledge the rights of IPLC residing in contracting states and to make it obligatory to obtain knowledge about GR in a manner that respects these knowledge holders' traditions, and cultures, and share in benefits.

Birnie convincingly argues that article 15 of the *CBD* is in principle compatible with the *General Agreement on Tariffs and Trade* (hereafter *GATT*).⁴⁹² He is not convinced that developing countries will derive substantial revenue unless they "illegally control exports and discriminate against foreign firms".⁴⁹³ Although the notion of 'alleged illegal conduct' cannot be supported, the author is correct that there are various reasons, such as complex negotiations with multiple local stakeholders,⁴⁹⁴ that contribute to a reluctance by major industries to compensate countries in the form of royalties for the use of GR. Another reason relates to patentability (the so-called lack of an inventive step), as discussed above.⁴⁹⁵

Helfer draws attention to joint efforts as early as the early 1970s by the private and public sectors to create plant and gene repositories to store and conserve GR outside their natural habitat.⁴⁹⁶ Some of these GR are now in the public domain as many repositories hold material "in trust for the benefit of the international community"⁴⁹⁷

⁴⁹¹ Articles 15 (5, 6 and 7) of the *CBD (1992)*. "15(6). Each Contracting Party shall endeavour to develop and carry out scientific research based on genetic resources provided by other Contracting Parties with the full participation of, and where possible in, such Contracting Parties. 15(7). Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, and in accordance with Articles 16 and 19 and, where necessary, through the financial mechanism established by Articles 20 and 21 with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party providing such resources. Such sharing shall be upon mutually agreed terms".

⁴⁹² General Agreement on Tariffs and Trade (1948).

⁴⁹³ Birnie, Boyle and Redgwell *International Law and the Environment* 805.

⁴⁹⁴ The Rooibos example comes to mind. See para 1.2.2.

⁴⁹⁵ See para 3.3.1.4.

⁴⁹⁶ Helfer 2004 *Yale J Int'l L* 38; Notably, according to Helfer, "the Consultative Group on International Agricultural Research (hereafter CGIAR) network holds the world's largest ex situ collections of plant genetic resources, with 600,000 accessions of improved [plant] varieties and wild species".

⁴⁹⁷ Helfer 2004 *Yale J Int'l L* 38.

and provide samples of genetic material for agriculture research and plant breeding purposes in developing countries. Helfer does admit that various entities obtained IP rights protection with or without the consent of these repositories, which led to international disputes and antagonised IPLC in developing countries who were disgruntled.

The *CBD* achieves the conservation of GR in two ways. First, through *in situ* conservation of genes, endangered species, and ecosystems in conservatories. Second, *ex situ* conservation happens through seed repositories, gene banks, and zoological and botanical gardens, preferably in the country of origin.⁴⁹⁸ Here Biber-Klemm has a different approach to Birnie. She, like Birnie, agrees that the question of access to GR has become one of central importance. She then proceeds to distinguish between developed and developing countries' respective approaches to access GR, using Australia and India as examples.

3.5.3.3 Nagoya Protocol

The *Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the CBD*⁴⁹⁹ (hereafter *Nagoya Protocol*) is a supplementary agreement to the *CBD*. It sets out the rules and mechanisms for access to GR and fair and equitable benefit sharing in respect of the benefits arising from the utilisation of GR.⁵⁰⁰ The WIPO-IGC correctly points out that this can only be achieved if the member countries have proper national legislation in place to deal with matters such as patent examinations to find relevant prior art and avoid the granting of erroneous patents; databases and information systems on GR; and compulsory GR disclosure requirements in patent applications.⁵⁰¹

The *CBD* and the *Nagoya Protocol's* emphasis on access to indigenous genetic and biological resources by contracting states, as well as benefit sharing leads to many

⁴⁹⁸ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 60.

⁴⁹⁹ *Nagoya Protocol* (2010).

⁵⁰⁰ WIPO IGC Background Brief - No 10 1.

⁵⁰¹ WIPO IGC Background Brief - No 10 3.

positive outcomes in developing countries that are signatories to this convention. For example, the *CBD* led to amendments to the South African *Patents Act*, which now has the additional requirement for a patent to be granted, namely that every applicant must state whether the invention claimed is based on, or derived from, an indigenous biological- or indigenous genetic resource, and/or is derived from TK or use.⁵⁰² Although it might be argued that developed and developing countries' respective motives behind the access to GR still remain different, the *CBD* and *Nagoya Protocol* are international law instruments that directly contribute to a better IKS dispensation worldwide.

3.5.4 *Treaty on Plant Genetic Resources for Food and Agriculture*

Various "soft law and normatively weak declarations"⁵⁰³ by developing countries and their criticism by developed world countries led to the UN's *International Treaty on Plant Genetic Resources for Food and Agriculture* (hereafter *ITPGR*),⁵⁰⁴ which successfully incorporated farmers' rights, national sovereignty, and the public domain treatment of PGR. This was a significant step in regulating the control and access to PGR in the public domain. More specifically, article 9⁵⁰⁵ of the *ITPGR* addresses traditional farmers' contributions to knowledge and the development of the world's wealth of PGR and their subsequent right to participate in decisions and benefit sharing.

It has been argued that certain provisions in the *ITPGR* conflict with the *TRIPS Agreement*, which has led to certain countries' issuing of interpretive

⁵⁰² See para 5.12 where South African legislation related to the *CBD* is discussed.

⁵⁰³ Helfer 2004 *Yale J Int'l L* 41.

⁵⁰⁴ International Treaty on Plant Genetic Resources for Food and Agriculture (2001).

⁵⁰⁵ Articles 9(1 and 2) of the *ITPGR* (2001). "A 9(1). The Contracting Parties recognize the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world. A 9(2). The Contracting Parties... take measures to protect and promote Farmers' Rights, including: a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture; b) the right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture; and c) the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture".

statements indicating their views that the treaty cannot be inconsistent with existing national and international IP laws.⁵⁰⁶

This treaty is important to this study because South Africa, as well as India have indigenous and subsistence farmers who want the right to save, use, exchange, and sell farm-saved crop seed varieties, something that is not regulated or permitted by many national laws. India has made progress in this regard and not only signed the treaty, but also put national legislation in place to promote indigenous and subsistence farmers within the UN's sustainability objectives.⁵⁰⁷

3.5.5 Comparative notes on the Nagoya Protocol, the UPOV Convention and the ITPGR

Medaglia et al point out that if interpreted using the provisions of the *Vienna Convention on the Law of Treaties*, the three international law instruments are in principle compatible. This is despite their different and competing interests relating to GR, access to GR and benefit sharing, IPLC, biodiversity, traditional and subsistence farmers' rights, and food security, all with the UN's sustainability goals. Since most countries worldwide are signatories to one or more, but not to all three instruments, access to GR remains challenging.⁵⁰⁸ The authors also point out that the provisions of the *UPOV Convention* are stronger and clearer than those found in the other two instruments, which places certain responsibilities on member states to ensure a proper balance in implementation. The authors conclude by remarking that as technological developments such as digital sequence information accelerate,

IP law in general has struggled to keep pace [and that these instruments will] become less well suited to deal with plant innovation, as the requirements for plant variety protection are less relevant because plant breeding has moved towards a genotypic approach which utilizes genetic modification and molecular breeding techniques that are based on the use of genetic data.⁵⁰⁹

⁵⁰⁶ Helfer 2004 *Yale J Int'l L* 41.

⁵⁰⁷ See para 4.3.7 where India's approach to seed varieties is discussed.

⁵⁰⁸ Medaglia et al 2018 *Ottawa Faculty of Law Working Paper* 19, 40.

⁵⁰⁹ Medaglia et al 2018 *Ottawa Faculty of Law Working Paper* 43.

Another observation, with reference to the countries studied in this thesis, is as follows: Only Australia does not support the Nagoya Protocol; India and Namibia do not support the *UPOV Convention*, while South Africa, Australia and Mexico do; South Africa and Mexico do not support the *ITPGR*, while India, Australia and Namibia do. All these countries have IKS challenges and from this fragmented support pattern of international law instruments related to GR it can be derived that a national approach to IKS remains the preferred way to address IKS. The reasons for country-specific preferences are analysed in the chapter below,⁵¹⁰ but for now we need to turn our attention to the *Swakopmund Protocol*.

3.5.6 *Swakopmund Protocol*

The *Swakopmund Protocol on the protection of traditional knowledge and expressions of folklore* (hereafter *Swakopmund Protocol*)⁵¹¹ is a regional Protocol adopted under the auspices of the African Regional Intellectual Property Organisation (hereafter ARIPO).⁵¹² Only nine African countries⁵¹³ are party to the Protocol. Although South Africa is not one of these nine countries, the purpose, as defined in section 1.1 of the Protocol, is commendable because it aims to standardise African countries' approach to IKS, by stating that

(a) to protect traditional knowledge holders against any infringement of their rights as recognized by this Protocol; and (b) to protect expressions of folklore against misappropriation, misuse and unlawful exploitation beyond their traditional context.⁵¹⁴

The Protocol also recognises the customary laws of the IPLC where TK applies.⁵¹⁵ Of further importance in this Protocol is section 9.3, which provides for non-monetary benefit sharing, such as community development projects that may

⁵¹⁰ Also see Chapter 4.

⁵¹¹ *Swakopmund Protocol on the protection of traditional knowledge and expressions of folklore* (2010).

⁵¹² ARIPO 1973 <http://www.aripo.org/>.

⁵¹³ *Swakopmund Protocol* (2010) 4; The eight African countries are: Botswana, Gambia, Liberia, Malawi, Namibia, Rwanda, Zambia and Zimbabwe.

⁵¹⁴ Section 1.1 of the *Swakopmund Protocol* (2010).

⁵¹⁵ Jacobs *Patents of traditional medicine inventions and their relationship with traditional knowledge associated with genetic resources in Namibia: Proposals for legal reform* 38.

include infrastructure development.⁵¹⁶ Following the *Swakopmund Protocol* the member states developed a guide on access to and benefit sharing arising from the use of IKS.⁵¹⁷ Some crucial aspects of this policy are the way prior informed consent (hereafter PIC), as well as fair and equitable benefit sharing are dealt with. Concerning PIC, it is a specific requirement that PIC protocols respect and comply with customary laws, practices and protocols.⁵¹⁸ Furthermore, member states are required to comply with the

fair, equitable and uniform benefit sharing standards that uphold the intrinsic, cultural and socio-economic values of genetic resources and associated traditional knowledge.⁵¹⁹

The way ARIPO approached the guidelines and clear differentiation between TK, TCE and GR is indeed useful when the provisions of the Nagoya Protocol⁵²⁰ are implemented by member states, or, for that matter, by South Africa. The Protocol is not without flaws. As Jacobs correctly points out, it fails to address how bioprospecting will be carried out in practice since PIC in relation to TK is not the same as PIC in relation to GR. GR are always linked to land and the community, while the Protocol gives certain rights to individuals. The Protocol, therefore, fails to align with the *CBD*.⁵²¹

Another flaw in this Protocol is its almost reckless creation and acknowledgement of indigenous communities as juristic persons.⁵²² According to Nwauche,

⁵¹⁶ Section 9.3 of the Nwauche 2014 *J World Intellect Prop*. "The right to equitable remuneration might extend to non-monetary benefits, such as contributions to community development, depending on the material needs and cultural preferences expressed by the indigenous or local communities themselves".

⁵¹⁷ ARIPO *Policy framework on access and benefit sharing arising from the use of genetic resources in the ARIPO member states: A guide for ARIPO member states*.

⁵¹⁸ ARIPO *ARIPO Genetic Resource Guide* s 8.2. "the PIC process shall respect and comply with the customary laws, practices and protocols of traditional and local communities and the disclosure of much information pertaining to the access shall be in a language understandable to the local communities".

⁵¹⁹ ARIPO *ARIPO Genetic Resource Guide* s 9.6.

⁵²⁰ See para 3.5.3.3 where the Nagoya Protocol is discussed.

⁵²¹ Jacobs *Patents of traditional medicine inventions and their relationship with traditional knowledge associated with genetic resources in Namibia: Proposals for legal reform* 39.

⁵²² Section 4(iii) of the *Swakopmund Protocol (2010)*. "...local or traditional community that is recognized as holding the knowledge through a form of custodianship, guardianship or collective and cultural ownership or responsibility. Such a relationship may be established formally or informally by customary practices, laws or protocols".

communities can also be "organized around other social factors such as religion and language in a way that they could qualify as local and traditional"⁵²³ and even the influence of Islam on Africa can, therefore, not simply be disregarded. The *Swakopmund Protocol* might be "sui generis standard setting initiative of ARIPO"⁵²⁴ that suits developing countries such as Namibia⁵²⁵ well, but not necessarily countries like South Africa, whose *TRIPS* -imposed international obligations weigh stronger than regional considerations.

When Namibia is more comprehensively discussed in Chapter 4 other insights on the *Swakopmund Protocol*⁵²⁶ are shared.

In this thesis, a strong international consensus approach towards IKS backed with national legislation, is supported. This brings us to WIPO's IGC.

3.6 WIPO Intergovernmental Committee

The WIPO-IGC⁵²⁷ is a forum established in 2000. At this forum, WIPO member states discuss the IP issues that arise in the context of IKS and the public domain, such as access to TK, TCE, GR, benefit sharing, and the general protection and dissemination of IKS.⁵²⁸ More importantly, though, the WIPO-IGC influences international law instruments by holding formal international negotiations with the object of reaching an agreement on one or more international legal instruments that would ensure the effective protection of IKS.⁵²⁹ For example, the WIPO-IGC influenced the *PCT* and the *WPPT*.⁵³⁰

In his assessment of the WIPO-IGC, Helfer refers to five topics that the committee studies and which touch on the public domain and IPLCs' interest in protecting it. These (soft studies, according to Helfer) are:

⁵²³ Nwauche 2014 *J World Intellect Prop* 193.

⁵²⁴ Nwauche 2014 *J World Intellect Prop* 191.

⁵²⁵ See para 4.5.2 where Namibia's approach towards the *Swakopmund Protocol* is discussed.

⁵²⁶ See para 4.5.2.

⁵²⁷ WIPO IGC 2002 <http://www.wipo.int/tk/en/igc/>.

⁵²⁸ WIPO IGC Background Brief - No 2 1.

⁵²⁹ WIPO IGC Background Brief - No 2 1.

⁵³⁰ WIPO IGC Background Brief - No 2 3.

(1) creating a searchable database of contractual clauses in MTAs governing access to genetic resources and benefit-sharing; (2) studying technical issues raised by the disclosure of biodiversity-related information in patent applications; (3) creating databases of traditional knowledge; (4) identifying ways to document traditional knowledge in the public domain; and (5) debating the appropriate legal rules to protect traditional knowledge, including sui generis systems.⁵³¹

IPLC also participate as *causos* (not a representatives of member states), express their views, and have their voices heard in the WIPO-IGC decision-making process, following the *DRIP's* Plenary Meeting that was held in 2007 and where it was recognised that "Indigenous peoples have the right to the full enjoyment, as a collective or as individuals, of all human rights and fundamental freedoms",⁵³² as the outcome will affect their rights.⁵³³ These rights to participate are indeed respected in that the 39th session of the WIPO- IGC specifically reported as such, together with the proposal of a voluntary fund to support such participation by representatives of IPLC. The 47th session has, in the meantime, been held, and draft resolutions have been submitted to WIPO for further action.⁵³⁴ Jacobs summarises the contentious issues related to the disclosure of GR as a compulsory requirement for patent applications in order "to prevent the misappropriation of TK associated with genetic resources".⁵³⁵

The WIPO-IGC's formulation of draft articles also indicates the divide between developed and developing countries regarding the public domain. For example, "the objectives of this instrument are to: (c) preserve a rich and accessible public domain in order to foster creativity and innovation,"⁵³⁶ or "once intellectual property rights in a genetic resource expire, the genetic resource should be in the public domain

⁵³¹ Helfer 2004 *Yale J Int'l L* 70.

⁵³² Article 1 of the *DRIP (2007)*. "Indigenous peoples have the right to the full enjoyment, as a collective or as individuals, of all human rights and fundamental freedoms as recognized in the Charter of the United Nations, the Universal Declaration of Human Rights and international human rights law".

⁵³³ WIPO IGC Background Brief - No 2 2.

⁵³⁴ WIPO/GRTKF/IC/47.

⁵³⁵ Jacobs *Patents of traditional medicine inventions and their relationship with traditional knowledge associated with genetic resources in Namibia: Proposals for legal reform* 41.

⁵³⁶ WIPO IGC *40th Session of WIPO IGC - Intellectual Property and Genetic Resources* 14. IGC negotiations, specifically in regard to TK and TCEs remain ongoing and these languages continue to evolve.

and not treated as a protected genetic resource,"⁵³⁷ or "a [patent] disclosure requirement related to genetic resources and [traditional knowledge associated with genetic resources] [shall]/[should] not apply to the following: (d) [Traditional knowledge in the public domain]".⁵³⁸ Be that as it may, it seems unlikely that WIPO will not soon accept draft articles as part of its portfolio of international law instruments. This is necessary to allow countries to deal with their own legislative processes and to craft IKS laws that are aligned with international treaties supported by WIPO.

IP and IKS need to be owned or controlled before the owners can trade with it. WIPO and the other instruments discussed above mostly deal with ownership and control, while the *TRIPS Agreement* mostly deals with trade with these intellectual commodities. The *TRIPS Agreement* requires a comprehensive discussion, which now follows.

3.7 *TRIPS Agreement*

3.7.1 Background

The *TRIPS Agreement* came into effect in January 1995.⁵³⁹ The *TRIPS Agreement*, to date the most comprehensive multilateral agreement on IP in that it sets out the minimum standards of IP protection to be provided by each member state, is administered by the World Trade Organisation (WTO) in terms of the *WTO Agreement*.⁵⁴⁰ Although South Africa has been a member of the WTO since 1995, it only signed the 2005 amendments of the *TRIPS Agreement* as late as 2016.

This paragraph about the *TRIPS Agreement* highlights articles relevant to IKS, together with commentary on how developing countries responded to this instrument. Article 7 states the objectives of the *TRIPS Agreement* and provides:

The protection and enforcement of intellectual property rights should contribute to the promotion of technological innovation and to the transfer and dissemination of

⁵³⁷ WIPO IGC 40th Session of WIPO IGC - Consolidated documents 9.

⁵³⁸ WIPO IGC 40th Session of WIPO IGC - Consolidated documents 12.

⁵³⁹ *TRIPS Agreement* (1994).

⁵⁴⁰ World Trade Organisation Agreement (1995).

technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.⁵⁴¹

In general, the *TRIPS Agreement* aims to structure the international IP system to balance the economic interests of investors in IP and the rights of inventors with the socio-economic challenges in developing countries.⁵⁴² More specifically, the *TRIPS Agreement* attempts to standardise IP protection and compel all member states to adopt certain minimum standards, for example, uniform patent terms and basic regulations pertaining to compulsory licensing and parallel importation.⁵⁴³ The last two examples are important to this thesis.

Compliance with the *TRIPS Agreement* has two trading benefits for member states: 'national treatment',⁵⁴⁴ and 'most favoured nation treatment'.⁵⁴⁵ National treatment implies that "once one member's (foreign) goods have entered another member's market, the goods must be afforded the same intellectual property protection as goods which were domestically produced".⁵⁴⁶ Most favoured nation benefits state that a nation cannot discriminate between WTO trading partners.⁵⁴⁷ Failure to comply with the *TRIPS Agreement* may lead to sanctions.⁵⁴⁸

Over the years, a fierce debate between developed countries and developing countries has resulted in the *TRIPS Agreement* being one of the most controversial international law instruments.⁵⁴⁹ On the one hand, the developed countries (of which the USA, the EU, and Japan are the strongest proponents of the *TRIPS Agreement*),⁵⁵⁰ who hold the majority of the world's patents, sought strong enforcement of these IP rights in developing countries.

⁵⁴¹ Article 7 of the *TRIPS Agreement* (1994).

⁵⁴² Adams & Adams *Submission on the Intellectual Property Consultative Framework*, 2016 5.

⁵⁴³ Nash 2000 *Berkeley Technology Law Journal* 487.

⁵⁴⁴ Article 3 of the *TRIPS Agreement* (1994).

⁵⁴⁵ Article 4 of the *TRIPS Agreement* (1994).

⁵⁴⁶ Nash 2000 *Berkeley Technology Law Journal* 488.

⁵⁴⁷ Nash 2000 *Berkeley Technology Law Journal* 488.

⁵⁴⁸ Nash 2000 *Berkeley Technology Law Journal* 488, fn 20.

⁵⁴⁹ Note that, to date, there is no agreement on the definitions of 'developing countries', 'developed countries', and 'least developed countries'.

⁵⁵⁰ Helfer 2004 *Yale J Int'l L* 2.

On the other hand, developing countries preferred less stringent enforcement of these rights by developed countries to develop their economy.⁵⁵¹ In the main, the debate centred around conflicts over pharmaceutical protection and public health among signatory nations, with South Africa and Brazil taking the lead with controversial legislation, while the USA and the EU fiercely contest all these developments because of the vagueness of the term 'adequate remuneration' and its implications for compulsory licencing provisions.⁵⁵² Like Ghidini, many authors believe that these fierce debates around the provisions of the *TRIPS Agreement* are justified. He says:

[S]trong intellectual property rights regimes such as the TRIPS Agreement are out of phase with the shifting geopolitical dynamics of multilateralism in international relations.⁵⁵³

Another author, Yu, then questions developing countries' inconsistent arguments with their push for stronger protection for TK and TCE in the *TRIPS Agreement* in an era where the economic and technological rise of the developing countries have rendered the traditional divide between IP, and TK and TCE increasingly elusive. He remarks that:

As much as [developing countries] want to have free and open access to copyrighted and patented products, they also believe that the same free access to indigenous knowledge and materials would lead to biopiracy that could jeopardize the heritage and culture of indigenous communities—or worse, threaten the very survival of these communities.⁵⁵⁴

Chander and Sunder, also IP scholars, believe that: "TRIPS has deliberately left [the public domain] unenclosed. TRIPS has upset the balance in the global public domain"⁵⁵⁵ because, they argue, many innovations relying on IK pertaining to GR are available in the public domain.

⁵⁵¹ Nash 2000 *Berkeley Technology Law Journal* 485.

⁵⁵² Nash 2000 *Berkeley Technology Law Journal* 487.

⁵⁵³ Ghidini, Peritz and Ricolfi (eds) *TRIPS and Developing Countries: Towards a new IP World Order?* 132.

⁵⁵⁴ Yu 2019 *Intellectual Property Law Review* 21.

⁵⁵⁵ Chander and Sunder 2004 *California Law Review* 1347.

These views result in a few contentious topics under the *TRIPS Agreement* relevant to this thesis and IKS. These are further discussed below. Of note is that many of these topics were addressed in some form or another in other international law instruments. These topics that aim to address the imbalance between industry, creators, and inventors on the one hand, and the boundaries of the public domain on the other, in the context of IP are: limitations and exceptions (*Berne Convention*);⁵⁵⁶ GI (*Paris Convention* and *Lisbon System*);⁵⁵⁷ public health, access to medicine, the compulsory licensing of related patents and the *Doha Declaration*.⁵⁵⁸

3.7.2 Limitations and exceptions

Article 13 of the *TRIPS Agreement* addresses limitations and exceptions that stem from the Berne Convention's three-step test⁵⁵⁹ and demarcate the public domain for copyright. Article 13⁵⁶⁰ of the *TRIPS Agreement* is almost a *verbatim* quote of article 9(2) of the Berne Convention, as discussed earlier.

3.7.3 Patents and plant breeders' rights

Article 27(1)⁵⁶¹ and (3)⁵⁶² of the *TRIPS Agreement* relates to patentable subject matter and is aligned with the provisions of the *Paris Convention*. This requirement

⁵⁵⁶ *Berne Convention (1886)*.

⁵⁵⁷ *Lisbon Agreement (1958)*; *Geneva Act (2015)*.

⁵⁵⁸ Helfer 2004 *Yale J Int'l L* 5.

⁵⁵⁹ See para 3.2.2 where the Three-Step test of Berne is discussed; *Berne Convention (1886)*.

⁵⁶⁰ Article 13 of the *TRIPS Agreement (1994)*. "Members shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder".

⁵⁶¹ Article 27(1) of the *TRIPS Agreement (1994)*. "[p]atents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application".

⁵⁶² Article 27(3) of the *TRIPS Agreement (1994)*. "Members may also exclude from patentability: (a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals; (b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement".

for patentability is mirrored in the South African *Patent Act* with reference to section 25(1).⁵⁶³

Birnie is one of many authors who emphasise the importance of the patentability of GR for major industries worldwide.⁵⁶⁴ The novelty requirement of patents is at issue here. In the text quoted, 'new', or more commonly referred to as the 'requirement of objective novelty', effectively means that naturally occurring biological resources cannot be patented, they can at best be discovered.⁵⁶⁵ However, the isolated genes, or genetically-modified organisms, derived from GR, can be patented.⁵⁶⁶ Without a patent (which implies novelty, invention, and ownership), access to GR becomes problematic for international commerce. More specifically, the *TRIPS Agreement*, on the one hand, recognises the rights of patent holders "to prevent third parties"⁵⁶⁷ from conducting various activities in respect of the patent (ie, essentially a negative right 'to prohibit others'), whereas article 16 of the *CBD*,⁵⁶⁸ promotes access to GR.

The *TRIPS Agreement* is silent on access to GR.⁵⁶⁹ Birnie and Helfer address this access to GR when they analyse the *CBD*.⁵⁷⁰ The conflicting issues between the *TRIPS Agreement* ('the right of patent holders to prohibit others') and the *CBD* ('access to GR') are not to be negated, while appreciating that *TRIPS* aims to exploit, while the *CBD* aims to protect.⁵⁷¹

3.7.4 Geographical indication

GI under the *TRIPS Agreement* must be considered within the context of AOO that was discussed under the *Paris Convention*.⁵⁷² The *TRIPS Agreement* deals with GI

⁵⁶³ Section 25(1) of the *Patents Act*. "A patent may be granted for any new invention which involves an inventive step and which is capable of being used or applied in trade or industry or agriculture".

⁵⁶⁴ Birnie, Boyle and Redgwell *International Law and the Environment* 805.

⁵⁶⁵ Note the very important difference between an invention and a discovery, as explained in the Glossary.

⁵⁶⁶ See para 3.3.1 where the rationale behind this requirement is discussed.

⁵⁶⁷ Article 28 of the *TRIPS Agreement* (1994).

⁵⁶⁸ Article 16 of the *CBD* (1992).

⁵⁶⁹ Birnie, Boyle and Redgwell *International Law and the Environment* 801.

⁵⁷⁰ See para 3.5.3.

⁵⁷¹ Birnie, Boyle and Redgwell *International Law and the Environment* 807.

⁵⁷² See para 3.3.2 where the difference between AOO and GI was discussed.

in a very clear manner, with article 22 first making the link between goods and their geographical origin attributes⁵⁷³ and second, making it a matter of national priority to legislate matters pertaining to geographical origin.⁵⁷⁴

Article 23(1), too, relates to GI, but with a special emphasis on wines and spirits and provides legal means to prevent the use of a GI in relation to goods, and goes even further by preventing subtle associations with the geographical place, such as the use of 'kind', 'type', 'style', 'imitation' or the like.⁵⁷⁵ Earlier, the differences between AOO and GI were discussed and Gervais even proposed the use of GCMs for IKS-related protection.

The limitations and exceptions to GI need to be understood before the most appropriate option for IKS can be determined. In this regard article 24(6) relates to one important exception in respect of GI and provides that where the customary name is the same in more than one language, that no protection is granted.⁵⁷⁶ This exception is nothing else than a demarcation of the public domain for GI and one cannot help being reminded of Rooibos. Rooibos is granted protection under the *TRIPS Agreement*, even though there is an anomaly – Rooibos refers to the colour

⁵⁷³ Article 22(1) of the *TRIPS Agreement (1994)*. "Geographical indications are, for the purposes of this Agreement, indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin".

⁵⁷⁴ Article 22(2) of the *TRIPS Agreement (1994)*. "In respect of geographical indications, Members shall provide the legal means for interested parties to prevent: (a) the use of any means in the designation or presentation of a good that indicates or suggests that the good in question originates in a geographical area other than the true place of origin in a manner which misleads the public as to the geographical origin of the good; (b) any use which constitutes an act of unfair competition within the meaning of Article 10bis of the Paris Convention (1967)".

⁵⁷⁵ Article 23(1) of the *TRIPS Agreement (1994)*. "Each Member shall provide the legal means for interested parties to prevent use of a geographical indication identifying wines for wines not originating in the place indicated by the geographical indication in question or identifying spirits for spirits not originating in the place indicated by the geographical indication in question, even where the true origin of the goods is indicated or the geographical indication is used in translation or accompanied by expressions such as 'kind', 'type', 'style', 'imitation' or the like".

⁵⁷⁶ Article 24(6) of the *TRIPS Agreement (1994)*. "Nothing in this Section shall require a Member to apply its provisions in respect of a geographical indication of any other Member with respect to goods or services for which the relevant indication is identical with the term customary in common language as the common name for such goods or services in the territory of that Member. Nothing in this Section shall require a Member to apply its provisions in respect of a geographical indication of any other Member with respect to products of the vine for which the relevant indication is identical with the customary name of a grape variety existing in the territory of that Member as of the date of entry into force of the WTO Agreement".

of the reddish tea bush, not the geographical region, which incidentally happens to be the only region in the world where Rooibos is successfully cultivated.⁵⁷⁷

Articles 22, 23 and 24 in respect of GI are to be considered together to ensure that the context remains intact. Gervais,⁵⁷⁸ who also wrote on the *Lisbon Agreement*⁵⁷⁹ points out that the *TRIPS Agreement* provides two types of protection for GI, namely "the Paris-type⁵⁸⁰ protection for GI";⁵⁸¹ and a higher level of protection for wines and spirits.⁵⁸² The *Paris*-type protection relates to trademarks and the importance of not misleading the public. Here, Gervais suggests that GI may well be protected as collective or certification marks. Therefore, this available legal instrument may adequately protect many IKS sub-categories relating to indigenous territories. The higher level of protection required for two specific products – wines and spirits – raises the question of why this may not be done for IKS sub-categories that relate to indigenous territories.

Biber-Klemm⁵⁸³ validly remarks that four distinct differences between GI and conventional trademarks, result in GI proving more relevant and interesting from a conceptual point of view. These differences are first that trademarks rather seek to protect a specific product using a distinct sign, logo, or device, as opposed to GI where trade and industry conducting business in a specific geographical area are free to use such GI for all their products. Second, unlike trademarks, GI cannot be assigned, sold, or transferred. It belongs to the specific geographical area. Third, by nature of the right it is far more difficult to register a GI, which protects IPLC from being denied certain rights. Fourth, trademarks can only be owned by individuals or juristic persons, while a GI is by definition a collective right.⁵⁸⁴ She then comments that "in this sense GI may be more amenable to adaption to IKS"⁵⁸⁵

⁵⁷⁷ See para 1.2.2 where the Rooibos case study is discussed.

⁵⁷⁸ Gervais "Traditional Innovation and GI" 125.

⁵⁷⁹ See para 3.3.2.1.

⁵⁸⁰ Gervais "Traditional Innovation and GI" 126; Gervais refers to Article 10^{bis} of the *Paris Convention*.

⁵⁸¹ Gervais "Traditional Innovation and GI" 130.

⁵⁸² Gervais "Traditional Innovation and GI" 131.

⁵⁸³ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 250.

⁵⁸⁴ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 250.

⁵⁸⁵ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 250-251.

– a viewpoint which supports the arguments throughout this thesis that GI and AOO are existing international legal instruments that lend themselves to providing legal solutions to the challenges posed by IKS, and that it remains a matter of national priority to unlock the potential of GI or AOO, whichever is best suited for that country.

In support of her last comment, Biber-Klemm continues to argue that GI are of particular interest to IKS in the sense that GI are: i) a collective right pertaining to geographical origin; ii) no tests such as novelty for patents are imposed – products must only exhibit characteristics attributable to their geographical origin; iii) protection does not relate to specific products or manufacturing processes; iv) the knowledge/know-how associated with the product or manufacturing process is in the public domain; and v) appropriation using conventional IP protection such as trademarks can be denied.⁵⁸⁶

Although these reasons may be valid, they bring with them certain caveats, namely that GI then remains a marketing tool, the underlying know-how remains unprotected, and the overuse of the GI may result in its generic use leading to it losing all its usefulness. Lastly, the benefit sharing mechanisms required could become so costly that the whole purpose is defeated.

3.7.5 Public health and the public domain

The sub-topic of public health and the *TRIPS Agreement* that follows is far more complex than the IKS and public domain topics that constitute this thesis' essence. The brief outline of the chronological developments below aims to contextualise the debate surrounding public health, access to both Western and traditional medicine, parallel importation, compulsory licencing, the *Doha Declaration*, and the interaction between these topics within the context of IKS.

⁵⁸⁶ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 252.

3.7.5.1 Chronological development of the public health debate in South Africa

The international public health debate – with South Africa's legislative exercises proving controversial – dates to 1997 and the enactment of the *Medicines and Related Substances Control Amendment Act* (hereafter *MRSCA Act*).⁵⁸⁷ South Africa's main aim in adopting the Act was to make drugs for infectious diseases with potential pandemic consequences more affordable and accessible to the public in South Africa. In 1998, all but ten sections of the *MRSCA Act* were repealed by the *Medicines and Medical Devices Regulatory Authority Act* (hereafter *MMDRA Act*).⁵⁸⁸ One of the sections retained was the controversial section 10,⁵⁸⁹ which introduced section 15C into the original *MRSC Act*.⁵⁹⁰ Section 10(a)⁵⁹¹ deals with compulsory licences, and section 10(b)⁵⁹² with parallel importation. The original *MRSC Act* (not to be confused with the *MRSCA Act*) was also repealed by the *MMDRA Act*, save for seven sections.⁵⁹³

⁵⁸⁷ *Medicines and Related Substances Control Amendment Act (1997)* 90 of 1997.

⁵⁸⁸ *Medicines and Medical Devices Regulatory Authority Act* 132 of 1998.

⁵⁸⁹ Section 10 of the *MRSCA Act (1997)*.

⁵⁹⁰ Section 15(C) of the *Medicines and Related Substances Control Act* 101 of 1965. "15C - Measures to ensure supply of more affordable medicines. The Minister may prescribe conditions for the supply of more affordable medicines in certain circumstances so as to protect the health of the public, and in particular may - (a) notwithstanding anything to the contrary contained in the *Patents Act*, 1978 (Act 57 of 1978), determine that the rights with regard to any medicine under a patent granted in the Republic shall not extend to acts in respect of such medicine which has been put onto the market by the owner of the medicine, or with his or her consent; (b) prescribe the conditions on which any medicine which is identical in composition, meets the same quality standard and is intended to have the same proprietary name as that of another medicine already registered in the Republic, but which is imported by a person other than the person who is the holder of the registration certificate of the medicine already registered and which originates from any site of manufacture of the original manufacturer as approved by the council in the prescribed manner, may be imported; (c) prescribe the registration procedure for, as well as the use of, the medicine referred to in paragraph (b)".

⁵⁹¹ Section 10(a) of the *MRSCA Act (1997)*. "The Minister may prescribe conditions for the supply of more affordable medicines in certain circumstances so as to protect the health of the public, and in particular may (a) determine that the rights with regard to any medicine under a patent granted in the Republic shall not extend to acts in respect of such medicine which has been put onto the market by the owner of the medicine, or with his or her consent".

⁵⁹² Section 10(b) of the *MRSCA Act (1997)*. "The Minister may ... prescribe the conditions on which any medicine which is identical in composition, meets the same quality standard and is intended to have the same proprietary name as that of another medicine already registered in the Republic, but which is imported by a person other than the person who is the holder of the registration certificate of the medicine already registered and which originates from any site of manufacture of the original manufacturer as approved by the council in the prescribed manner, may be imported".

⁵⁹³ The *MMDRA Act (1998)* was promulgated with effect from 30 April 1999.

The controversial legislative developments around the original *MRSC Act* by means of the *MRSCA* and *MMDRA Acts* quickly provoked severe criticism. On the one hand, primary and public healthcare lobby groups and activists argued that the government should guarantee free access to medicine for epidemic diseases. On the other hand, the pharmaceutical industry and governments of developed countries argued that the amendments contravene international patent treaties, as well as the *TRIPS Agreement*,⁵⁹⁴ and that

compulsory licensing and parallel imports expropriate our patent rights [and] the only beneficiary of the erosion of patents would be the generic drug industry.⁵⁹⁵

The South African Pharmaceutical Manufacturing Association (PMASA), together with international opponents⁵⁹⁶ of the *MRSCA Act*, with the backing of their governments,⁵⁹⁷ then initiated legal action to challenge the Act's legality in the Pretoria High Court (*PMASA High Court case*).⁵⁹⁸ During the initial phase of the *PMASA High Court case*, the USA⁵⁹⁹ and European Commission put severe pressure on South Africa to repeal the legislation,⁶⁰⁰ essentially arguing that the "law in question would appear to be at variance with South Africa's obligations under the TRIPS".⁶⁰¹ By the time the *PMASA High Court case* reached our courts, the USA government had changed its policies and subsequently withdrew its support from the *PMASA High Court case*. This was mainly due to public pressure during the American presidential election campaign at that time.⁶⁰² Also, at that time it became

⁵⁹⁴ Nash 2000 *Berkeley Technology Law Journal* 492.

⁵⁹⁵ Fisher and Rigamonti 2005 *Harvard Law School* 5.

⁵⁹⁶ The opponents were forty-two members of the Pharmaceutical Manufacturers Association of South Africa (PMASA), composed significantly of local licensees of western pharmaceutical firms.

⁵⁹⁷ 't Hoen 2002 *Chi J Int'l L* 30. Notably the USA.

⁵⁹⁸ Notice of Motion in the High Court of South Africa (Transvaal Provincial Division), Case No 4183/98.

⁵⁹⁹ Fisher and Rigamonti 2005 *Harvard Law School* 7; "In February 1998, forty-seven members of Congress sent a letter to the USTR calling for a response to the MRSC [Act], stating that Section 15C permitted parallel importation and allowed for the "administrative expropriation of patented technology," both of which would violate the TRIPS Agreement".

⁶⁰⁰ 't Hoen 2002 *Chi J Int'l L* 31, footnote 11.

⁶⁰¹ 't Hoen 2002 *Chi J Int'l L* 31, footnote 11.

⁶⁰² 't Hoen 2002 *Chi J Int'l L* 31, footnote 11; The then-presidential candidate Mr Al Gore, who was accused of 'killing babies' and 'Gore's greed kills' by lobby groups.

clear that the South African government used essentially the same draft legal text produced by the WIPO Committee of Experts,

a fact that made it difficult for the drug companies to maintain the position that the Amendment Act violated South Africa's obligations under international law.⁶⁰³

In 2001, in the absence of further support from the USA and the European Commission, the *PMASA* High Court case was unconditionally dropped by the PMASA and the USA pharmaceutical industry. This is unfortunate as clarity from our courts would have been welcomed on two crucial matters – section 25 of the *Constitution* (property rights); and article 27 of the *TRIPS Agreement* (patentable subject matter). This is said because the plaintiffs argued,

(ii) that it would enable the Minister of Health to deprive intellectual property owners of their property without compensation in violation of Article 25 of the South African Constitution, and (iii) that it was a violation of Art 27.⁶⁰⁴

Steering the public health debate's relevance to this thesis, section 25 of the *Constitution* is comprehensively discussed later⁶⁰⁵ where reference is made to a court case that confirmed the Constitutional rights of IP owners under section 25 of the *Constitution*. Furthermore, article 27 of the *TRIPS Agreement* concerns itself with patentable subject matter, a topic of great relevance to IKS and also discussed elsewhere in this paragraph.⁶⁰⁶

Statutory provisions and international law instruments like the two mentioned above can never accurately reflect the subtleties of the debates and viewpoints expressed by policymakers, industry representatives, and other stakeholders. For example, after South Africa's health care debate had been concluded, Dr Vasella⁶⁰⁷ remarked that:

The debate about patents emerged under the impression that patents would prevent access to life-saving medicines for poor patients. People forgot that

⁶⁰³ 't Hoen 2002 *Chi J Int'l L* 31, footnote 11.

⁶⁰⁴ Fisher and Rigamonti 2005 *Harvard Law School* 6.

⁶⁰⁵ See para 5.4.

⁶⁰⁶ See paras 3.7.3 and 3.7.5.

⁶⁰⁷ Fisher and Rigamonti 2005 *Harvard Law School* 19; At that time Dr Daniel Vasella was the president of the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA).

patents are a fundamental condition for obtaining the financial means to pay for research and development. But again – instead of developing timely alternatives with partners, the industry behaved defensively.⁶⁰⁸

This statement brings us to IKS and the public domain in respect of health care issues. If the pharmaceutical industry responds to traditional medicines and IKS legislation in the same defensive way in which public health-care medicines are considered, precious time will be lost. On the other hand, should proponents of IKS wish to be taken seriously by the international pharmaceutical community, they will have to appreciate that the gains made on parallel importation and compulsory licencing will apply equally to IKS. Traditional medicine, or open access to traditional medicine in developed countries might be regarded as equally reasonable.

Continuing with the legislative and judicial developments in South Africa, in 1999 the *MRSCA Act* and the *MMDRA Act's* promulgation was set aside by the Transvaal Provincial Division of the High Court⁶⁰⁹ and the original *MRSC Act*, as it applied on 29 April 1999 was reinstated. This ruling was later confirmed in the Constitutional Court (hereafter CC).⁶¹⁰ After that a long period of legislative reform took place between 2000 and 2017. To summarise, in 2008, the *Medicines and Related Substances Amendment Act* (hereafter *MRSA Act, 2008*),⁶¹¹ and in 2015 the *Medicines and Related Substances Amendment Act* (hereafter *MRSA Act, 2015*)⁶¹² were promulgated. The 2008 and 2015 *MRSA Acts* must be read together. Both amendment Acts came into force simultaneously and gave effect to numerous

⁶⁰⁸ Fisher and Rigamonti 2005 *Harvard Law School* 19; This argument is arguably also applicable to the genetic modification and patenting of landrace seeds in India, that prevented famine in India. See para 4.3.7 where this argument is substantiated.

⁶⁰⁹ *PMASA and Another: In re Ex parte President of RSA and Others* 1999 (4) SA 788 (T) 798; The order made by Judge Ngoepe et al reads as follows: "The order of the Court a quo is set aside and substituted by the following order: [Proc R49 in GG 6519 of 30 April 1999] is null and void and of no force or effect. [GN R567 in GG 20025 of 7 May 1999] is null and void and of no force or effect. The applicability of Act 101 of 1965 and of Act 36 of 1947 as it pertained on 29 April 1999 continued and continues unabated as from the aforesaid date".

⁶¹⁰ *PMASA and others v President of RSA and others* 2000 (2) SA 674 (CC) para 95 (*PMASA CC case*).

⁶¹¹ *Medicines and Related Substances Amendment Act (2008)* 72 of 2008.

⁶¹² *Medicines and Related Substances Amendment Act (2015)* 14 of 2015.

amendments to the original *MRSC Act* of 1965, the last being the *Medicines and Related Substances Amendment Act* (hereafter *MRSA Act, 2002*).⁶¹³

3.7.5.2 Public health: Doha Declaration

In 2001 the South African government and other WTO members signed the *Doha Declaration*,⁶¹⁴ which in essence "put public health before commercial interests and offered much needed clarification in the field of TRIPS and public health".⁶¹⁵

Articles 8(1)⁶¹⁶ and 8(2)⁶¹⁷ of the *TRIPS Agreement* relate to member states having the right to adopt measures necessary to protect public health and nutrition, which may include the abuse of IP rights by rightsholders. Although article 8 of the *TRIPS Agreement* provides for measures necessary to protect public health, over a period of years developing countries put immense pressure on the international community to add a new rule to the *TRIPS Agreement* with proposed wording that reads:

Nothing in the TRIPS Agreement shall prevent Members from taking measures to protect public health.⁶¹⁸

't Hoen analyses five developments⁶¹⁹ that influenced the public health debate – one of which was the *PMASA* High Court case⁶²⁰ which eventually led to the *Doha Declaration*, which is, in turn, considered as a breakthrough in international discussions on the *TRIPS Agreement* and its related articles on access to medicines.

⁶¹³ *Medicines and Related Substances Amendment Act (2002)* 59 of 2002.

⁶¹⁴ Doha WTO Ministerial Declaration WT/MIN(01)/DEC/1 2000 (2001).

⁶¹⁵ Fisher and Rigamonti 2005 *Harvard Law School* 31.

⁶¹⁶ Article 8(1) of the *TRIPS Agreement* (1994). "Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement".

⁶¹⁷ Article 8(2) of the *TRIPS Agreement* (1994). "Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology".

⁶¹⁸ 't Hoen 2002 *Chi J Int'l L* 38, fn 39; She quotes from the WTO working paper submitted by the African group.

⁶¹⁹ 't Hoen 2002 *Chi J Int'l L* 30, 32, 33, 34, 35; These developments are: "A. Big Pharma vs Nelson Mandela: Trade Dispute in South Africa; B. US vs Brazil: The Brazilian Aids Program; C. The role of NGOs; D. The WTO Ministerial 1999 in Seattle; E. Changing attitudes among global players".

⁶²⁰ Notice of Motion in the High Court of South Africa (Transvaal Provincial Division), Case No 4183/98. The plaintiffs eventually withdrew the case after public pressure.

't Hoen points out that paragraph 4 of the *Doha Declaration* – the full text of which is cited below⁶²¹ – is essentially a compromise text, which resulted from initial negotiations between Brazil and the USA; the text "acknowledges the unmitigated right of countries to take measures to protect public health".⁶²²

Interestingly, in her insightful article 't Hoen further remarks that:

Doha came to pass...because the uncompromising positions of western countries such as the US and Canada were hard to maintain in light of the anthrax crisis and the threat that a shortage of Ciprofloxacin ('Cipro') might occur.⁶²³

This remark was made in light of the USA and Canada being willing to set aside a German patent that threatened their healthcare systems, which forced the WTO to start asking the question of "are we prisoners of our own patent systems?"⁶²⁴ This new position among the international community is yet to be applied to traditional medicine (knowledge) later in this thesis.⁶²⁵

The two controversial issues arising from the *Doha Declaration* are compulsory licences and parallel importation, dealt with in paragraph 5⁶²⁶ of the Declaration. With reference to paragraph 5(b) of the *Doha Declaration*, 't Hoen points out that the Declaration is also clear on the use of compulsory licences, which are in no way confined to cases of emergency or urgency, that the grounds are unlimited, and

⁶²¹ Para 4 of the *Doha Declaration (2001)*. "We agree that the TRIPS Agreement does not and should not prevent Members from taking measures to protect public health. Accordingly, while reiterating our commitment to the TRIPS Agreement, we affirm that the Agreement can and should be interpreted and implemented in a manner supportive of WTO Members' right to protect public health and, in particular, to promote access to medicines for all. In this connection, we reaffirm the right of WTO Members to use, to the full, the provisions in the TRIPS Agreement, which provide flexibility for this purpose".

⁶²² 't Hoen 2002 *Chi J Int'l L* 40.

⁶²³ 't Hoen 2002 *Chi J Int'l L* 42.

⁶²⁴ 't Hoen 2002 *Chi J Int'l L* 43.

⁶²⁵ See Chapter 6.

⁶²⁶ Paras 5(b) and 5(d) of the *Doha Declaration (2001)*. "Each Member has the right to grant compulsory licences and the freedom to determine the grounds upon which such licences are granted. The effect of the provisions in the TRIPS Agreement that are relevant to the exhaustion of intellectual property rights is to leave each Member free to establish its own regime for such exhaustion without challenge, subject to the MFN and national treatment provisions of Articles 3 and 4".

that parallel importation is clarified under paragraph 5(d).⁶²⁷ Another author, Birnie⁶²⁸ points to the different philosophical approaches between the *TRIPS Agreement* and the *CBD* regarding compulsory licences. He says the *TRIPS Agreement* assertively provides for compulsory licences for patented subject matter,⁶²⁹ and the *CBD*, merely provides for "legislative, administrative or policy measures"⁶³⁰ for developing countries to gain access to patented subject matter, when public health is at stake.

Also, of note is that in both these international law instruments, no reference is made to GR within the context of IKS. The arguments related to public health and the *TRIPS Agreement* in this paragraph will, therefore, need to be extrapolated to IKS.

However, this need to extrapolate GR-related arguments might be the point. Hypothetically, developed countries seek clarity on the ownership of GR as a prerequisite for financial gain; environmentalists unconditionally care for depletable resources of mother earth and its GR that should be protected from appropriation; and, IPLC fiercely fight for cultural respect and acknowledgement. In this regard, one concession was indeed made in 2005 when article 31^{bis} of the *TRIPS Agreement* was inserted to "make it easier for developing countries in need to import cheaper generic medicines".⁶³¹ Only time will tell whether those developing countries which have benefited from this concession will make TM available on the same terms to developed countries.

⁶²⁷ 't Hoen 2002 *Chi J Int'l L* 40-41.

⁶²⁸ Birnie, Boyle and Redgwell *International Law and the Environment* 809.

⁶²⁹ Articles 31 and 31^{bis} of the *TRIPS Agreement* (1994); Note the subtle indirect wording of the important text of a 31(h): "Where the law of a Member allows for other use of the subject matter of a patent without the authorization of the right holder, including use by the government or third parties authorized by the government, the following provisions shall be respected: (a)...(h) the right holder shall be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization;...(i)...(l)".

⁶³⁰ Birnie, Boyle and Redgwell *International Law and the Environment* 809.

⁶³¹ Birnie, Boyle and Redgwell *International Law and the Environment* 809.

3.7.5.3 Parallel importation

Parallel importation is another relevant issue and is particularly prevalent in the pharmaceutical industry, as Du Plessis⁶³² points out. She argues that developing countries' governments' objective of making affordable medicine and healthcare available (reducing drug prices by allowing generic substitution of off-patent drugs, and the parallel importation of on-patent drugs) is skewed by: i) the absence of the principle of free movement of goods in Africa, as is successfully applied in Europe; and ii) the inconsistent way in which IP laws are applied in Africa,⁶³³ which leads to price differentials being exploited by traders. Du Plessis states the essence of the problem:

While revenue is diverted away from the patentee/manufacturer, the benefit does not necessarily reach the patient, nor does any benefit accrue to government health care institutions or funds. The parallel trader who benefits, does so without in any way adding any value to the product or to the service provided to patients.⁶³⁴

Nash, also writing on parallel importation in the pharmaceutical industry,⁶³⁵ cautions that parallel importation is not necessarily the answer for developing countries – he points out that Kenya had to outlaw the parallel importation of pharmaceuticals for safety reasons after it

found 'alarming evidence' of substandard and counterfeit drugs, and experienced problems with customer confusion over multiple brands of the same product.⁶³⁶

Kenya's inability to manufacture drugs is not unique. This is recognised in paragraph 6 of the *Doha Declaration* that reads:

We recognize that WTO Members with insufficient or no manufacturing capacities in the pharmaceutical sector could face difficulties in making effective use of compulsory licensing under the TRIPS Agreement.⁶³⁷

The WTO indeed resolved this matter with two appropriate decisions in 2005, which reaffirm that WTO members may issue compulsory licences "to countries that have

⁶³² Du Plessis 1999 *Law, Democracy & Development* 3; GN R977 in GG 20370 of 13 August 1999.

⁶³³ Du Plessis 1999 *Law, Democracy & Development* 3.

⁶³⁴ Du Plessis 1999 *Law, Democracy & Development* 4.

⁶³⁵ Nash 2000 *Berkeley Technology Law Journal* 502.

⁶³⁶ Nash 2000 *Berkeley Technology Law Journal* 499.

⁶³⁷ Para 6 of the *Doha Declaration* (2001).

insufficient or no manufacturing capability".⁶³⁸ Interestingly, of the many developing countries, India is one of few that has over the years developed a generic drug industry and related capabilities⁶³⁹ – capabilities that are also required when traditional medicines are manufactured.

All governments, be they developing or developed, should be able to ensure the quality of parallel imports and be able to recall unsafe products. This is a basic human right. IKS and the use of TM to address public health issues can never be a stronger right than the right to safety. If governments of developing countries are pushing too hard for parallel importation, they might end up like Kenya with a dysfunctional healthcare system.

In bringing this matter closer to the IKS topic, one needs to analyse the controversial amendments to the *MRSC Act*.⁶⁴⁰ Du Plessis points out that the provisions of section 15(C) of the *MRSC Amendment Act, 1997*⁶⁴¹ was seen by the pharmaceutical industry

as empowering the Minister to be in a position to override patent and trademark rights at any time by mere administrative action.⁶⁴²

She further argues that the provisions of section 15(C) contravene articles 27 and 28 of the *TRIPS Agreement* in that they discriminate against the field of technology (in this particular case, health sciences and pharmacology) and curtail the exclusive rights of inventors.⁶⁴³ She concludes her argument by pointing out that while articles 8 and 30 allow countries to adopt measures necessary to protect public health, these measures must still be consistent with the provisions of the *TRIPS Agreement*. Furthermore, article 31 prescribes

in great particularity the principles and directives to be respected where a member country allows for the use of the subject matter of a patent without the authority

⁶³⁸ Jakkrit *Patent rights in pharmaceuticals in Developing Countries : Major challenges for the future* 17.

⁶³⁹ Jakkrit *Patent rights in pharmaceuticals in Developing Countries* 16.

⁶⁴⁰ See para 5.16 regarding the *MRSC Act (1965)*.

⁶⁴¹ Section 15(C) of the *MRSCA Act (1997)*.

⁶⁴² Du Plessis 1999 *Law, Democracy & Development* 9.

⁶⁴³ Du Plessis 1999 *Law, Democracy & Development* 10.

of the patent owner, including use by the government or third parties authorised by the government.⁶⁴⁴

Her final submission is that "the mechanism of compulsory licences, as already recognised in the *Patents Act*, could have been modified to apply in the situation".⁶⁴⁵ Suffice to say that when a government wishes to protect medicinal plants and drug discoveries emanating from IKS, sight should not be lost of the implications this may hold for the *TRIPS Agreement*.

Another two important sub-articles of the *TRIPS Agreement* are articles 70(8) and 70(9).⁶⁴⁶ These two provisions were the driving force behind the USA's pressure on India to amend the Indian *Patents Act* and is illustrative of India's pragmatic approach towards finding the balance between IKS and being an internationally recognised trading partner with developed countries.⁶⁴⁷

3.7.6 Concluding remarks on the *TRIPS Agreement* in relation to IKS

Today, 25 years after adopting the *TRIPS Agreement*, one could ask what has happened during the last quarter of a century? Is the IP regime between the developed and developing countries now aligned? Has fair trade evolved around the globe? One author, Yu, attempts to find answers to these and many other questions about the true value of the *TRIPS Agreement*. Yu argues that although developed

⁶⁴⁴ Du Plessis 1999 *Law, Democracy & Development* 10.

⁶⁴⁵ Du Plessis 1999 *Law, Democracy & Development* 10.

⁶⁴⁶ Articles 70(8 and 9) of the *TRIPS Agreement* (1994). "A 70(8). Where a Member does not make available as of the date of entry into force of the WTO Agreement patent protection for pharmaceutical and agricultural chemical products commensurate with its obligations under Article 27, that Member shall: (a) notwithstanding the provisions of Part VI, provide as from the date of entry into force of the WTO Agreement a means by which applications for patents for such inventions can be filed; (b) apply to these applications, as of the date of application of this Agreement, the criteria for patentability as laid down in this Agreement as if those criteria were being applied on the date of filing in that Member or, where priority is available and claimed, the priority date of the application; and (c) provide patent protection in accordance with this Agreement as from the grant of the patent and for the remainder of the patent term, counted from the filing date in accordance with Article 33 of this Agreement, for those of these applications that meet the criteria for protection referred to in subparagraph (b). 70(9). Where a product is the subject of a patent application in a Member in accordance with paragraph 8(a), exclusive marketing rights shall be granted, notwithstanding the provisions of Part VI, for a period of five years after obtaining marketing approval in that Member or until a product patent is granted or rejected in that Member, whichever period is shorter, provided that, subsequent to the entry into force of the WTO Agreement, a patent application has been filed and a patent".

⁶⁴⁷ See para 4.3.7.2 where India's approach towards healthcare is discussed.

countries at large find the agreement primitive, constrained, inadequate, and ineffective, developing countries have changed their positions over time. He proposes five reasons for this about-turn.⁶⁴⁸

First, referring to the far more stringent agreements between developed countries, he argues that the *TRIPS Agreement* may become 'timid and permissive'. Second, the *TRIPS Agreement* came into effect before the evolution of biotechnology and the ICT sectors, today's 4IR, and the growing debate on IKS, resulting in the agreement being obsolete. Third, because of the *TRIPS Agreement's* flexibility, developing countries took shelter behind the language of biodiversity, public health, and food security to develop other instruments. Fourth, the *TRIPS Agreement* has not succeeded in harmonising IP standards. Lastly, developing countries have improved regarding IP protection and enforcement – notably India and China where the IP regime is today treated with much greater respect.⁶⁴⁹

3.8 Human Rights Instruments

Only human rights instruments of the EU and the UN are reviewed under this section, to ensure a more focussed approach. Although some of the UNs' instruments on human rights are non-binding, their influence on the international discourse on the public domain, IKS and IP cannot be ignored.

Five UN instruments directly relate to IKS are summarised below. Yu, with reference to Helfer, put the underlying fear of human rights activists in perspective, a fear that is recognised in this thesis:

Some in the human rights community ... fear that intellectual property owners – in particular, multinational corporations – will invoke the creators' rights and property rights provisions of international law instruments to lock in maximalist intellectual property rules that will further concentrate wealth in the hands of a few at the expense of the many.⁶⁵⁰

⁶⁴⁸ Yu 2019 *Intellectual Property Law Review* 2.

⁶⁴⁹ Yu 2019 *Intellectual Property Law Review* 5, 8, 12, 15, 18.

⁶⁵⁰ Yu "Challenges to the Development of a Human Rights Framework for Intellectual Property " 5; Yu refers to an article of Helfer and Austin, dated 2011.

With this background, these instruments will be discussed briefly to contextualise the IKS discourse and is therefore not an attempt to be exhaustive.

3.8.1 United Nations' Universal Declaration of Human Rights

The UNs' *UDHR*⁶⁵¹ is a non-binding international instrument that acknowledges the inherent dignity and the equal and inalienable rights of all members of the human family as the foundation of freedom, justice, and peace in the world.⁶⁵² Yu points out that human rights activists have ever since the drafting phase of this instrument opposed the inclusion of IP rights (art 27 deals with IP, albeit not explicitly mentioned). In Yu's view, article 17 adequately deals with property as a human right and IP rights should be secondary to fundamental human rights such as the right to freedom of thought, expression, association, and religion.⁶⁵³ Yu argues that one should not overcomplicate the arranged marriage between IP and human rights, as it is universally agreed that no rights are absolute. For example, real property, a human right, is limited by means of servitudes and building zones. Similarly, IP is limited by means of territory and duration.⁶⁵⁴ This instrument also protects cultural life as a human right (art 27(1))⁶⁵⁵ and the same argument as with IP can safely be assumed with rights pertaining to IKS.

3.8.2 United Nations' International Covenant on Economic, Social and Cultural Rights

The UN *International Covenant on Economic, Social and Cultural Rights* (hereafter *ICESCR*)⁶⁵⁶ addresses minority rights, the right to self-determination, and the right of people to enjoy their cultural heritage in the language of their choice, as stated below. The *Pillay* case is but one example where "an understanding of what the

⁶⁵¹ *UDHR (1948)*.

⁶⁵² Preamble of the *UDHR (1948)*.

⁶⁵³ Article 17 of *UDHR (1948)*. "Everyone has the right to own property alone as well as in association with others. (2) No one shall be arbitrarily deprived of his property".

⁶⁵⁴ Yu "Challenges to the Development of a Human Rights Framework for Intellectual Property " 5.

⁶⁵⁵ Article 27 of the *UDHR (1948)* "A 27(1). Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits. A 27(2). Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author".

⁶⁵⁶ United Nations' International Covenant on Civil and Political Rights (1976).

cultural community considers to be a cultural practice"⁶⁵⁷ and how the implications for IPLC are implied.⁶⁵⁸ Furthermore, Yu points out that article 15 of the *ICESCR*,⁶⁵⁹ which recognises ethnic, religious or linguistic minorities,⁶⁶⁰ is almost identical to article 27 of the *UDHR* and that with this instrument the status of all IP (and IKS) will be balanced with that of human rights.⁶⁶¹

3.8.3 *Convention for the Safeguarding of the Intangible Cultural Heritage*

In response to some shortcomings of the UNESCO *Convention Concerning the Protection of the World Cultural and Natural Heritage* (hereafter *CPWCNH*),⁶⁶² the UNESCO *Convention for the Safeguarding of the Intangible Cultural Heritage* (hereafter *CSICH*)⁶⁶³ recognises intangible cultural heritage as something that indigenous communities, and individuals from those communities, can claim as part of their culture. More specifically, the purpose of the *CSICH* is to help local cultural traditions worldwide survive and flourish in the face of globalisation. A committee meets annually to evaluate nominations proposed by member states and decides whether to inscribe those cultural practices and expressions of intangible heritage on the Convention's lists. According to articles 2 and 3(b)⁶⁶⁴ of the Convention, cultural heritage is manifested in: i) oral traditions and expressions, including

⁶⁵⁷ *MEC for Education, KwaZulu-Natal v Pillay* para 154.

⁶⁵⁸ See para 5.3.2.

⁶⁵⁹ Article 15 of the *ICCPR* (1976). "The States Parties to the present Covenant recognize the right of everyone: (a) To take part in cultural life; (b) To enjoy the benefits of scientific progress and its applications; (c) To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author".

⁶⁶⁰ Summary of the *ICCPR* (1976). "In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language".

⁶⁶¹ Yu "Challenges to the Development of a Human Rights Framework for Intellectual Property " 6.

⁶⁶² Cordes 2014 *Cultural Heritage Law* 3. Some of the shortcomings are that for some cultures' heritage is not site based but activity based, in particular in the Global South.

⁶⁶³ Convention for the Safeguarding of the Intangible Cultural Heritage (2003).

⁶⁶⁴ Article 2 of the *UNESCO CSICH* (2003). "'Intangible cultural heritage' means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity".

language as a vehicle of the intangible cultural heritage; ii) performing arts; iii) social practices, rituals and festive events; iv) knowledge and practices concerning nature and the universe; and v) traditional craftsmanship.⁶⁶⁵

Of the countries compared in this thesis, Australia and South Africa are not signatories to the *CSICH*, while India, Mali, Mexico, and Namibia are signatories⁶⁶⁶. Some commentators argue that one of the primary reasons why Australia (and other developed countries like the USA) do not support the *CSICH*, is that developed countries "generally regard culture as a matter of freedom – freedom of association, freedom of speech, freedom of religion – [and] not [a matter of] regulation".⁶⁶⁷

In addition, developed countries have strong for-profit and not-for-profit cultural industries, such as the multicultural and highly influential film industries, festivals, public parks where art is displayed, concert halls, and museums. When an international instrument regulates these industries, it unintentionally creates a conducive environment for cultural appropriation. Putting it differently, developed countries are worried that the *CSICH* may facilitate developing nations in claiming new IP over their intangible cultural heritage and then "use those claims to their advantage in bilateral and multilateral trade agreements".⁶⁶⁸ This fear is not necessarily justified as the *CSICH* specifically provides that:

Nothing in this Convention may be interpreted as ... affecting the rights and obligations of States Parties deriving from any international instrument relating to intellectual property rights or to the use of biological and ecological resources to which they are parties.⁶⁶⁹

However, this international instrument's association with institutionalised cultural appropriation remains contentious when the legal implications of this instrument are analysed in the Mexican context, for example.⁶⁷⁰ Closer to home, Nwauche argues that tangible cultural assets are merely the manifestation of intangible cultural

⁶⁶⁵ UNESCO 2003 <https://ich.unesco.org/en/what-is-intangible-heritage-00003>.

⁶⁶⁶ See Annexure C where the respective countries' participation in international law instruments are summarised.

⁶⁶⁷ Kurin 2014 *Intangible Cultural Heritage* 335-336.

⁶⁶⁸ Kurin 2014 *Intangible Cultural Heritage* 353.

⁶⁶⁹ Article 3(b) of the *UNESCO CSICH (2003)*.

⁶⁷⁰ See para 4.4.6.

heritage, even though most intangible cultural heritage, such as folklore, is transferred verbally as part of ICs' living heritage. Therefore, according to him, African cultures should be treated differently.⁶⁷¹ This point of view is problematic as Raath has pointed out.⁶⁷² He refers to the South African *National Heritage Resources Act*,⁶⁷³ and indicates that it already provides adequately for TK and that there is no need to deal with intangible cultural heritage other than already provided for in the mentioned Act. This point is to some extent supported by Cordes, who writes from an Australian perspective. She argues that:

[I]n the years since [the *CPWCNH*, 1972], it has become increasingly clear that there is an inextricable link between the intangible cultural heritage and many of these very tangible sites [and that] museums need to be people centred and provide spaces for activities and opportunities for communication if they wish to support the work of safeguarding the intangible cultural heritage and keep this heritage alive.⁶⁷⁴

These diverse perspectives on the *CSICH*, from Australia to Mexico, are useful and illustrates the need for country-specific approaches to deal with intangible cultural heritage.

3.8.4 Convention on the Protection and Promotion of the Diversity of Cultural Expressions

The UNESCO *Convention on the Protection and Promotion of the Diversity of Cultural Expressions* (hereafter *CPPDCE*)⁶⁷⁵ aims formally to recognise the dual nature, both cultural and economic, of contemporary cultural expressions produced by artists and cultural professionals. The *CPPDCE* shapes the design and implementation of policies and measures that support the creation, production, distribution of and access to cultural goods and services (the creative industries).⁶⁷⁶ The *CPPDCE* raises similar legal issues to the *CSICH* discussed in the previous paragraph, and these will not be repeated.

⁶⁷¹ Nwauche *The Protection of Traditional Cultural Expressions in Africa* 16.

⁶⁷² Raath and Brits 2019 *Tydskrif vir Geesteswetenskappe* 353.

⁶⁷³ *National Heritage Resources Act* 25 of 1999.

⁶⁷⁴ Cordes 2014 *Cultural Heritage Law* 2.

⁶⁷⁵ Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005).

⁶⁷⁶ *UNESCO CPPDCE* (2005).

3.8.5 United Nations' Declaration on the Rights of Indigenous Peoples

*DRIP*⁶⁷⁷ entrenches indigenous peoples' right to culture as a way of thinking and living in articles 11⁶⁷⁸ and 31.⁶⁷⁹ The UN furthermore regards indigenous peoples as vulnerable societies whose dignity, survival, and welfare should always be protected.⁶⁸⁰ Indigenous peoples' right to land and their control over ancestral land and resources are protected in articles 25⁶⁸¹ and 26.⁶⁸² Notably, Australia, New Zealand, Canada, and the USA initially voted against this Declaration because of IP concerns.⁶⁸³

3.8.6 Charter of Fundamental Rights of the European Union

The *European Union's Charter of Fundamental Rights* (hereafter *EUCFR*)⁶⁸⁴ has the

⁶⁷⁷ *DRIP* (2007).

⁶⁷⁸ Article 11 of the *DRIP* (2007). "Indigenous peoples have the right to practise and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature".

⁶⁷⁹ Article 31 of the *DRIP* (2007). "Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions".

⁶⁸⁰ UN 2019 <https://www.un.org/development/desa/indigenouspeoples/about-us.html>. The UN defines indigenous peoples as: "Indigenous peoples are inheritors and practitioners of unique cultures and ways of relating to people and the environment. They have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live. Despite their cultural differences, indigenous peoples from around the world share common problems related to the protection of their rights as distinct peoples".

⁶⁸¹ Article 25 of *DRIP* (2007). "Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard".

⁶⁸² Article 26 of *DRIP* (2007). "Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired. A 26(2). Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired. A 26(3). States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned".

⁶⁸³ Helfer and Austin *Human Rights and IP* 51.

⁶⁸⁴ Charter of Fundamental Rights of the European Union 2012/C 326/02 (2012).

same status as the EU's founding treaties and as such enjoys primacy over secondary EU law, namely directives and regulations. The right to property is entrenched in article 17.⁶⁸⁵ Of significance is the way in which IP rights are recognised in this article – some scholars see this as nothing more than a bold statement. However, others experience it as a mysterious provision with an unclear scope.⁶⁸⁶ The *EUCFR* also recognises that no right is absolute, but has a qualified status and as such it may be restricted in the light of general interest, subject to the principle of proportionality⁶⁸⁷ which outlines the limits of rights in EU democracies, and which originates from German administrative law.⁶⁸⁸

The proportionality test comprises of four steps and is aimed at establishing whether the restrictive measure chosen is suitable to pursue the legal objective in the public interest. These steps are: i) proper purpose; ii) rational connection; iii) necessary means; and iv) a proper relation between the benefit gained by realising the proper purpose and the harm caused to the Constitutional right. Therefore, the first two steps consider the appropriateness and efficacy of the measures. The necessity step is then strictly applied. The fourth step then balances the respective interests and rights proportionately.⁶⁸⁹

Important analogies can be drawn between the protection of TCE of IPLC and digital sampling of contemporary artists when the proportionality test is applied to

⁶⁸⁵ Article 17 of the *EUCFR* (2012). "Right to property. 1. Everyone has the right to own, use, dispose of and bequeath his or her lawfully acquired possessions. No one may be deprived of his or her possessions, except in the public interest and in the cases and under the conditions provided for by law, subject to fair compensation being paid in good time for their loss. The use of property may be regulated by law in so far as is necessary for the general interest. 2. Intellectual property shall be protected".

⁶⁸⁶ Montagnani and Trapova 2019 *Mitchell Hamline Law Review* 20.

⁶⁸⁷ Article 52(1) of the *EUCFR* (2012).

⁶⁸⁸ Montagnani and Trapova 2019 *Mitchell Hamline Law Review* 21.

⁶⁸⁹ Article 52(1) of the *EUCFR* (2012). "Article 52. Scope and interpretation of rights and principles. 1. Any limitation on the exercise of the rights and freedoms recognised by this Charter must be provided for by law and respect the essence of those rights and freedoms. Subject to the principle of proportionality, limitations may be made only if they are necessary and genuinely meet objectives of general interest recognised by the Union or the need to protect the rights and freedoms of others".

copyright.⁶⁹⁰ For example, in the German *Pelham* case,⁶⁹¹ the group Kraftwerk took Pelham to court on the basis that the song *Nur mir* contained digital samples of Kraftwerk's original song *Metall auf Metall*. The digital sampling was approximately two seconds of a rhythm sequence from the song and incorporated it into a continuous loop. The German courts considered various issues at stake in this case, which included the scope of exclusive rights and the permitted uses, the validity of open norms, and flexibilities available to the courts and industry when they implement limitations and exceptions pertaining to copyright.⁶⁹² The *Bundesgerichtshof* then referred the matter to the CJEU because the intersection between copyright and fundamental rights as contained in the *EUCFR* was crucial,⁶⁹³ and also because the *Bundesgerichtshof* sought clarity on whether German legislation is compatible with EU law.⁶⁹⁴ The CJEU held, while recognising rightsholders' exclusive right to authorise or prohibit reproduction of their phonograms in whole or in part, that:

[W]here a user, in exercising the freedom of the arts, takes a sound sample from a phonogram in order to embody it, in a modified form unrecognisable to the ear in another phonogram, that is not a reproduction.⁶⁹⁵

The CJEU also mentioned that such use is aligned with the *EUCFR* and the public interest.

3.9 Conclusion

Chapter 3 aimed to analyse existing international law instruments within the context of the public domain, IKS and IP. The main purpose was to ascertain if international

⁶⁹⁰ Also see the *Bridgeport* case in para 5.8 on how the USA dealt with digital sampling.

⁶⁹¹ *Pelham GmbH and Others v Ralf Hütter and Florian Schneider-Esleben (CJEU)* ECLI:EU:C:2019:624 (*Pelham* case).

⁶⁹² Montagnani and Trapova 2019 *Mitchell Hamline Law Review* 36.

⁶⁹³ *Pelham GmbH and Others v Ralf Hütter and Florian Schneider-Esleben (CJEU)* para 75.

⁶⁹⁴ *Pelham GmbH and Others v Ralf Hütter and Florian Schneider-Esleben (CJEU)* para 75-86; German legislation allows an independent work created in free use of a protected work, in principle, to be published and exploited without the consent of rightsholders. The court ruled that "the German legislation, which, notwithstanding that the abovementioned exceptions and limitations are listed exhaustively, provides for an exception or limitation not referred to under EU law allowing a distinct work, created in the free use of a protected work, in principle, to be published and exploited without the consent of the rightholders, is not in conformity with EU law".

⁶⁹⁵ *Pelham GmbH and Others v Ralf Hütter and Florian Schneider-Esleben (CJEU)* para 87.

law instruments are robust and agile enough to provide for IKS-related protection or whether a *sui generis* international instrument (or range of instruments) for IKS protection is required. In the main it was found that no *sui generis* instruments are needed, as will be substantiated below.

It has been shown that the existing international law instruments, as well as the natural evolution of these instruments over time, adequately provides for the protection and commercial exploitation of IKS worldwide. There is a proviso, though: IKS need to be viewed through the WIPO lens, which provides for the distinct delineation of categories of IKS, namely TK, TCE and GR. During the analyses of the respective international law instruments, it has been pointed out that, in the main, many of these instruments are suitable to address IKS-related challenges.

For example, the *Berne Convention* is founded on the three principles of *droits des auteurs*, *droit moral*, and *domaine public*. The boundaries of the public domain within the context of IKS can be reconciled with all three of these principles, and national legislators merely need to apply these principles to national legislation. All three principles of the *Berne Convention* are applicable to IKS, albeit with some subtleties when the author is a community, or where the works were created during sacred and secret ceremonies. These nuances are important to understand and will be done for specific countries, because the *Berne Convention* provides for country-specific legislation, which necessitates a country specific approach to these principles.

The *Paris Convention* and its related instruments adequately provide for the incorporation of GR within the current patent regime. Also, under strong French influence, this instrument appreciates the importance of *terroir*. It was also found that the *Paris Convention* and its fellow instruments that were formulated at later stages all provide for adequate protection of industrial property, be it patents, marks or designs. Nuanced approaches by civil law and common law countries, notably on how *terroir* is perceived, make these instruments difficult to harmonise in respect of IKS. Country-specific approaches are therefore required.

The *Rome Convention* and its fellow instruments appreciate how TCE can be protected, more so in the digital age in which we live. From the *Rome Convention* and its fellow instruments one can see that performers of folklore are adequately protected, be it a traditional ceremony or any other performance. The challenge related to sacred and secret ceremonies remains, but the instruments that were discussed leave adequate room for country-specific solutions.

A list of international law instruments pertaining to GR were analysed, of which the *CBD* and its fellow instruments have direct relevance to South Africa. It was found that the *CBD* achieves the conservation of GR in two ways. First, through *in situ* conservation of genes, endangered species, and ecosystems in conservatories. Second, *ex situ* conservation happens through seed repositories, gene banks, and zoological and botanical gardens, preferably in the country of origin. These protection mechanisms should be adequate for the protection of GR in relation to IPLCs in South, as will be analysed when the *Biodiversity Act* is revised in Chapter 5.

The human rights instruments that were analysed all proved to be useful for bridging the divide between developed and developing countries. And finally, the *TRIPS Agreement* brings nations together, albeit because of a recent pandemic and health-care challenges worldwide.

With these insights gained on international law instruments, one can now analyse a few countries and how they use international law instruments to address their local challenges pertaining to IKS.

CHAPTER 4 INDIGENOUS KNOWLEDGE SYSTEMS IN SELECTED COUNTRIES

4.1 Chapter overview

This Chapter conducts an analysis of the legal systems of Australia, India, and Mexico in relation to IKS. Furthermore, on the African continent, two brief excursions are undertaken in the same respect with a focus on Namibia and Mali.

The two common law countries and former British colonies reviewed – India and Australia – are grappling with reconciling IP and IKS. Australia's rich jurisprudence on IKS, and India's strong commercial approach towards IKS, together with the colonial history they share with South Africa, are among the reasons these two countries have been selected for research. It is hoped that this will broaden the perspective on the topic and validate the research findings on the public domain, IP and IKS in South Africa.

Mexico is a civil law country on the South American continent that also grapples with IKS. IKS are discussed in this country because they contrast strongly with those in Australia and India. This promotes a deep understanding of the research topic. Due to language limitations, Mexico is not studied in the same depth as Australia, or India where English is widely used.

The Namibian legal system, which is a similar common law legal system to that of South Africa, will be a short focal point, mainly because of the similarity the two countries bear, but also because of the regional *Swakopmund Treaty* to which Namibia is a signatory, but South Africa is not. The analysis then moves north in Africa to Mali. This is to briefly show the influence of Islamic law on IKS and IP on the African continent. Readers must appreciate that these two countries are merely explored to contextualise South Africa within the African setting and not as a comprehensive legal review.

A golden thread should be visible in that a broad range of questions are posed in respect of each country, but not necessarily in the same order or way of formulation.

These questions all feed into the main research question, which is what are the appropriate legal instruments for protecting Indigenous Knowledge Systems in South Africa without threatening the public domain?

The reader is also reminded of the secondary research questions: Do IKS require a *sui generis* model in each of the countries discussed, or have their existing normative IP regimes evolved to such a level of sophistication that it may provide adequate local solutions to the legal challenges pertaining to the public domain, IP and IKS in those countries?

Some of the broader questions that are posed for these countries are:

Are IKS deemed to be property? (How is IKS as legal object defined?)

How are sacred and secret IKS being dealt with by each country? (e.g., moral rights)

Who owns IKS? Communities or authors or creators? (e.g., how are legal subjects defined and juristic persons created)

How does the land (and sea) impact on IKS?

Can the respective countries' approaches towards IKS be aligned with international law instruments to which they are signatories? (WIPO's approach to differentiate between TK, TCE and GR is used as point of departure)

How is cultural appropriation seen in each of these countries?

How is the public domain seen in each of these countries?

The country-specific scenes set by this chapter, starting with Australia, will facilitate an in-depth analysis of South Africa's legal and regulatory framework in the next chapter.

4.2 Commonwealth of Australia

4.2.1 Introduction to Australia

With the *Australia Act* of 1986⁶⁹⁶ the powers of the parliament of the UK to legislate for the Commonwealth of Australia (hereafter Australia) were terminated. The Australian *Constitution* of 1900,⁶⁹⁷ as amended over the years, remained in force after independence. Notably, some of the important amendments to the Australian *Constitution* were the restoration of the human rights of Aboriginal Australians in 1967,⁶⁹⁸ which paved the way for the development of IKS jurisprudence in Australia for many decades to come.

4.2.1.1 Overview of IKS jurisprudence developments in Australia

Oguamanam points out, while referring to Australian case law, that the rights and interests of Aboriginal Australians were initially only accommodated under the "laws of the Commonwealth of Australia, its sub-national states, and the common law",⁶⁹⁹ and failed to protect the customary laws and practices of IPLC. Oguamanam continues to show convincingly how the development of Australian jurisprudence succeeded in infusing "the private and communal rights over intellectual creations between individual Aboriginal artists and their communities".⁷⁰⁰ This is important for unravelling the correlation between the public domain and IKS in Australia and elsewhere.

Australia houses some thirteen per cent of the world's biodiversity,⁷⁰¹ rendering legislation related to GR very important. As a developed country, Australia has had the resources to fast-track legislative measures to address access to GR, benefit sharing, prior informed consent,³⁰ and related issues imposed on the country by the *CBD*. For example, in 1985, shortly before the *CBD* was drafted, the *Conservation*

⁶⁹⁶ *Australia Act* 142 of 1985.

⁶⁹⁷ *Commonwealth of Australia Constitution Act (Aus)* 1900.

⁶⁹⁸ Clauses 51(xxvi) and 127 of the *Australian Constitution* that originally negated Aboriginal Australians voting rights, were scrapped in 1967.

⁶⁹⁹ Oguamanam 2018 *J World Intellectual Prop* 7.

⁷⁰⁰ Oguamanam 2018 *J World Intellectual Prop* 7.

⁷⁰¹ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 96.

and *Land Management Act*⁷⁰² and the *National Parks and Wildlife Act*⁷⁰³ of Western Australia were both amended, which in the 1990s led to commercial rights being granted to exploit *conocucrovone*, the active compound found in the 'smokebush', an endemic plant species.⁷⁰⁴ Around the same time, one of the more prominent developments by lobby groups was the 1993 Julayinbul Statement on Indigenous Intellectual Property Rights.⁷⁰⁵ This statement arose from a meeting between indigenous and non-indigenous specialists who agreed that indigenous IP rights are best determined from within the customary laws of the indigenous groups themselves. These laws must be acknowledged and treated as equal to any other Australian laws. More specifically, indigenous communities' access to GR and the sovereign control over GR were at the heart of the Julayinbul Statement.

Given the dire need for commerce to gain unrestricted access to GR on the one hand, and Aboriginal Australians' lobby to restrict access to GR, it comes as little surprise that court cases on access to GR surfaced in Australia around this period. Two of these cases are noteworthy, albeit addressing copyright rather than GR. Both cases are analysed in-depth in the latter parts of this chapter.⁷⁰⁶

In the *Yumbulul* case⁷⁰⁷ the court was required to consider the communal nature of Aboriginal knowledge and natural resources. The judge was quick to acknowledge that the Australian copyright regime does not allow for the reproduction rights of communal works. In the *Milpurrruru* case⁷⁰⁸ the court considered cultural harm to assess damages for breach of copyright of Aboriginal artists whose designs had been wrongfully reproduced on carpets.

Early observations relate to the confirmation by the Australian courts that IP is indeed property, bearing in mind that authors such as Okediji appreciate that

⁷⁰² *Conservation and Land Management Act (Aus)* 126 of 1984

⁷⁰³ *National Parks and Wildlife Act (Aus)* 80 of 1974.

⁷⁰⁴ See case study in para 4.2.2.

⁷⁰⁵ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 98.

⁷⁰⁶ See paras 4.2.6.1 and 4.2.6.2 respectively.

⁷⁰⁷ *Yumbulul, T v Reserve Bank of Australia, Aboriginal Artists Agency Ltd & Anor (Aus)* [1991] FCA 448; 21 IPR 481 (*Yumbulul* case).

⁷⁰⁸ *Milpurrruru, G & Ors v Indofurn P/L & Ors (Aus)* [1994] FCA 975; 130 ALR 659 (*Milpurrruru* case).

multiple public domains already exist, and that the public domain is constituted differently for the patent, copyright, and trademark regimes.⁷⁰⁹ Of importance to this thesis is that in both court cases, the notion of communal property rights, as opposed to individual rights, surfaced.⁷¹⁰ Starting with a case study is appropriate:

4.2.2 Case study: Smokebush

The case study on Smokebush, often referred to by IKS scholars, is considered to contextualise the case law examples in Australia reviewed elsewhere. Since the 1960s, the National Cancer Institute of the USA has been collecting and screening plant and organism samples from indigenous territories worldwide, mainly because of the high cost of bringing new medicines to the marketplace.⁷¹¹ *Conocurovone*, the active compound of one of these screened plants, the Smokebush, showed promise in antiviral research and USA and Australian patents were subsequently filed – both of which had lapsed in the meantime.⁷¹² The Western Australian and USA governments then entered into a research, and commercial licence agreements with commercial companies. The Aboriginal Australians raised concerns that such exclusive rights would lead to situations where anyone could be prevented from using those species for any other purpose without the consent of these companies.⁷¹³ Today the Aboriginal Australians claim that they have not received any "acknowledgement, financial or otherwise, for their role in having discovered the healing properties of Smokebush".⁷¹⁴ This is while the commercial companies abandoned the project for undisclosed reasons, although commentators like Janke argue that it was as a result of indigenous peoples' TK rights, as well as their role in the nurturing of PGR, being ignored by Western laws. It seems as if the perceived legal chasm between these two worlds was simply too wide.⁷¹⁵

⁷⁰⁹ Okediji 2018 *Centre for International Governance Innovation* 5-7.

⁷¹⁰ See para 4.2.5.

⁷¹¹ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 8.

⁷¹² USA patent 5,672,607: Boyd *et al*, *Antiviral naphthoquinone compounds, compositions and uses thereof (USA)* (1997); Australian patent 680,872: Boyd *et al*, *Antiviral naphthoquinone compounds, compositions and uses thereof (Aus)* (1997).

⁷¹³ Janke 2018 *International Journal of Rural Law and Policy* 2.

⁷¹⁴ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 98.

⁷¹⁵ Janke 2018 *International Journal of Rural Law and Policy* 2-9.

Many similarities can be drawn between the Smokebush story and the hoodia plant saga in South Africa, where the divide between the Western approach to IP and IPLCs' perceived value of IKS, eventually led to both projects being abandoned, to the detriment of all. This example also illustrates the importance of having legal surety in respect of IKSs' ownership to provide a conducive environment for investors. Within this context and to substantiate the comments above, Australia is now analysed in more detail.

4.2.3 The public domain in Australia

Oguamanam is one of very few scholars who specifically analyses the relation between IKS and the public domain. From the outset he makes it very clear that "indigenous worldviews do not share the pre-appropriation narrative of public domain (pre-civil society) from the lens of Western social contract theory".⁷¹⁶ After considering case law in Australia he asks the crucial question: "What can we learn from [these Australian cases] concerning the public domain?"⁷¹⁷ and then continues with three insightful observations while remarking that the post-appropriation public domain is of actual relevance to the indigenous communities of Australia. First, according to him, customary laws and practices of the Aboriginal Australians do not restrict knowledge production but merely delineate its dissemination. Knowledge is continually produced and shared in the community. Second, access to knowledge is an inclusive and participatory ecosystem where the creation and day-to-day utilisation of knowledge occurs within specific cultural environments. Third, Aboriginal Australians are mindful of the reality of their diffusion of TK to the public, also recognising the role of education for preserving TK and TCE. Access to TK and TCE by the public is recognised under the customary law and practices of Aboriginal Australians.⁷¹⁸ After Oguamanam made these enlightening observations, he proceeded to criticise proponents of the existing Eurocentric public domain as blind to TK and TCE and portraying them as having no appreciation for the rights of IPLC. He quotes an African author, Achebe, who once wrote that "[u]ntil lions have their

⁷¹⁶ Oguamanam 2018 *J World Intellectual Prop* 9.

⁷¹⁷ Oguamanam 2018 *J World Intellectual Prop* 9-10.

⁷¹⁸ Oguamanam 2018 *J World Intellectual Prop* 9-10.

own historians, the history of the hunt will always glory the hunter".⁷¹⁹ Europeans might strongly disagree with Oguamanam because the Eurocentric *EUCFR* underpins how EU countries are "conscious of [their] spiritual and moral heritage, ... while respecting the legitimate interests of confidentiality and of professional and business secrecy",⁷²⁰ while this charter also strongly entrenches property rights.⁷²¹

Janke is an Australian IKS scholar whose intimate knowledge of Aboriginal Australians and the Torres Strait Islanders cannot be disregarded. She prefers the use of IK, although she points out that the terms IK and TK can in many respects be used interchangeably. Janke characterises IK as follows: First, IK and its many spiritual expressions has a distinct cultural and social base and identity that is linked to the land and seas. Second, IK belongs to the community that is managed according to customary laws and community shared values. Third, IK evolves in that it is continuously developed, nurtured, and refined, notably by individuals in such communities. All three of these characteristics of IK must be treated holistically to ensure that sacred or secret IK is not to be published and put at risk by being placed in the public domain.⁷²²

This balancing act between the public domain and the protection of secret and sacred IK of IPLC is perhaps one of the reasons why the Smokebush's active compound, *conocurovone*, never made it to the marketplace and why, many years later, a second attempt was made to commercialise the active analgesic compound found in the bark of the *nyardoo majala* tree. This time the indigenous community was duly respected and consulted (I.e., informed prior consent), which led to a patent that was owned jointly by the Jarlmadangah community and Griffith University in Australia. This happened while ensuring that the disclosure of the IK related to the tree into the public domain was done in such way that the secret use

⁷¹⁹ Oguamanam 2018 *J World Intellectual Prop* 13.

⁷²⁰ Preamble and a 42(2)(b) of the *EUCFR* (2012). Preamble: "Conscious of its spiritual and moral heritage, the Union is founded on the indivisible, universal values of human dignity, freedom, equality and solidarity; it is based on the principles of democracy and the rule of law. It places the individual at the heart of its activities, by establishing the citizenship of the Union and by creating an area of freedom, security and justice".

⁷²¹ See para 3.8.6 where the *EUCFR* is discussed.

⁷²² Janke 2018 *International Journal of Rural Law and Policy* 6.

by members of the IC was never compromised.⁷²³ The Jarlmadangah community had to be registered as a juristic person to enable assignment to the new legal entity – something that South Africa is still grappling with regarding the *IK Act* and which is reviewed later in this thesis.⁷²⁴

In summary, the broad construct of the public domain is well received by IPLC in Australia, although this acceptance cannot be read as unbridled access to the public domain regarding sacred and secret TK and TCE.

4.2.4 *Property as a Constitutional right in Australia*

Neither the Australian *Constitution*, nor the *Australia Act* provides for the explicit entrenchment of private property. The only reference to property in these two Acts is in clause 51(xxxi) of the Australian *Constitution*⁷²⁵ which gives parliament powers to acquire property. This clause was judicially considered during the *JT International SA* case.⁷²⁶ This case before the High Court of Australia, dealt with legislation that imposes the use of plain packaging on tobacco products for health reasons and is at first sight irrelevant to this thesis. The underlying Constitutional matters are of great relevance for a comparative legal analysis of the ownership of IKS and IP and the case is therefore now discussed.

4.2.4.1 JT International SA case

Briefly, in the *JT International SA* case the plaintiffs, the owners of various trademarks and other IP rights in relation to their proprietary tobacco products, intentionally took a Constitutional approach towards the ownership of IP (trademarks in this particular case) to steer away from tobacco-specific legislation that they believed discriminated against their commercial sector and also because they did not dispute the health risks caused by tobacco products. The plaintiffs

⁷²³ Janke 2018 *International Journal of Rural Law and Policy* 19.

⁷²⁴ See Chapter 5.

⁷²⁵ Clause 51(xxxi) of the *Australian Constitution*. "The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws".

⁷²⁶ *JT International SA v Commonwealth (Aus)* [2012] HCA 43 (2012) 1 (*JT International SA* case).

argued that the legislative plain packaging provisions imposed on them "effected an acquisition of their intellectual property rights and goodwill on other than just terms, contrary to section 51(xxxi) of the Constitution".⁷²⁷ On first sight the reader might agree, because the latest Australian tobacco legislation prohibits the use of tobacco trademarks on the product's packaging and imposes significant restrictions upon the colour, shape, and finish of such packaging.⁷²⁸ The judges were unanimous that trademarks are indeed property under the Australian *Constitution*, and held that "no property had been taken and, secondly, that in any event there had been no acquisition of property".⁷²⁹ The court then concluded that:

While the imposition of those controls may be said to constitute a taking in the sense that the plaintiffs' enjoyment of their intellectual property rights and related rights is restricted, the corresponding imposition of controls on the packaging and presentation of tobacco products does not involve the accrual of a benefit of a proprietary character to the Commonwealth.⁷³⁰

Former South African Judge Harms⁷³¹ was quick to review this important case and concluded that the Constitutional approach adopted by Australia in respect of IP ownership will resonate well with the South African Constitutional Court where a similar approach towards IP ownership has already been established. He referred to the *FNB* case⁷³² and other cases. Many years before the *JT International SA* case, ownership of artistic works was also settled. In the *Bulun Bulun* case⁷³³ the judge observed that ownership of land and ownership of artistic works are separate statutory and common law institutions.

4.2.5 The land (and sea) and Indigenous Knowledge Systems in Australia

The intimate relationship between land (and sea) and the Aboriginal Australians as well as the Torres Strait Islanders is well recorded in literature. These communities believe that land creates rights in ideas, designs, rituals, and geological resources,

⁷²⁷ *JT International SA v Commonwealth (Aus)* 1 para 2.

⁷²⁸ *JT International SA v Commonwealth (Aus)* 1 para 2.

⁷²⁹ *JT International SA v Commonwealth (Aus)* 32 para 155.

⁷³⁰ *JT International SA v Commonwealth (Aus)* para 44.

⁷³¹ Harms 2013 *De Jure* 397.

⁷³² *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services.*

⁷³³ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* [1998] 157 ALR 193 256 (*Bulun Bulun* case).

while creative artists' right to create artefacts or perform rituals, dances, or plays are inherited authority and flow from rights in the land itself. The Australian legislator has, over the years, diligently, but not necessarily successfully, attempted to find the balance between legislation, common law, and customary laws of indigenous communities in relation to land.

The *Native Title Act*⁷³⁴ is one such Act that aims to recognise and protect native title, to establish ways in which future dealings affecting native title may proceed, and to establish a mechanism for determining claims to native title. In 2002, the *Native Title Act* was challenged in the Australian High Court in the *Ward* case.⁷³⁵ In this case four appeals were joined. The complexity of this case pertaining to the title to land was described by one of the judges as the 'labyrinth of Minos'.⁷³⁶ The issues central to the four appeals were "whether there could be partial extinguishment of native title rights and interests, and what principles should be adopted in determining whether native title rights and interests have been extinguished in whole or in part".⁷³⁷ For native title to be recognised under the Act, it must satisfy the elements set out in section 223(1).⁷³⁸

The native title application by the claimants (Ward, on behalf of the ICs) concerned an area of 7 900 km² of land and water in the East Kimberley region of Western Australia. The land included substantial economic activities at the irrigation areas surrounding the Ord River and the Argyle diamond mine. The claimants submitted that the determination of native title should have been more extensive than that allowed for under section 223 of the *Native Title Act* in order to acknowledge full

⁷³⁴ *Native Title Act (Aus)* 110 of 1993.

⁷³⁵ *Western Australia v Ward (Aus)* [2002] HCA 28 (*Ward* case).

⁷³⁶ *Western Australia v Ward (Aus)* para 969; The sheer length of the court case, which is 414 pages and the Native Title Act, 607 pages, both single space lines, is testimony to the complexity of this matter.

⁷³⁷ *Western Australia v Ward (Aus)* para 1.

⁷³⁸ Section 223 of the *Native Title Act (Aus)*. "Native title. Common law rights and interests. (1) The expression native title or native title rights and interests means the communal, group or individual rights and interests of Aboriginal peoples or Torres Strait Islanders in relation to land or waters, where: (a) the rights and interests are possessed under the traditional laws acknowledged, and the traditional customs observed, by the Aboriginal peoples or Torres Strait Islanders; and (b) the Aboriginal peoples or Torres Strait Islanders, by those laws and customs, have a connection with the land or waters; and (c) the rights and interests are recognised by the common law of Australia".

ownership in the area, as well as the right to resources and the right to maintain, protect, and prevent the misuse of cultural knowledge.⁷³⁹ The court that applied the 'inconsistency of incidents' test,⁷⁴⁰ ruled by a majority that partial extinction and suspension of native title rights is possible under the *Native Title Act*. The court also ruled that native title coexists to the extent that it is not inconsistent with other interests over the same land or waters, and that indigenous Australians do not have native title rights to minerals or cultural property.⁷⁴¹

The Australian *Constitution* does not have a Bill of Human Rights in which property is entrenched, and the way in which the judges approached the balance between real property, cultural property, and the public interest in the *Ward* case sheds some light on how complex it is to judge under statute, while common law and customary law demand to be recognised. For example, the native title right to restrict access to culturally sensitive sites by the claimants has not been repealed. The judges suggested that such access could be used to protect cultural knowledge and that a regime to protect cultural knowledge must be found under general law and statute.⁷⁴²

Another example is the court's disregard for international law instruments, with only one dissenting judge arguing for the recognition of such instruments and case law from countries with human rights instruments, Canada, for example, which would have given the court a better outward-looking perspective on the intricacies relating to land.⁷⁴³ A last example relates to the court's strong views on land acquisition (with compensation) and the public domain. Here the court stated that "the dedication, indeed, the mere creation, of a [road] reserve is a clear signal that the land is

⁷³⁹ Stoeckel 2003 *Sydney Law Review* 257.

⁷⁴⁰ Stoeckel 2003 *Sydney Law Review* 263; The *inconsistency of incidents* test identifies the legal nature and extent of the rights of the non-indigenous interest and objectively compares the rights against an established native title claim. Other tests that were considered, but not applied are the operational inconsistency test and the adverse dominion test.

⁷⁴¹ Stoeckel 2003 *Sydney Law Review* 272.

⁷⁴² Stoeckel 2003 *Sydney Law Review* 258.

⁷⁴³ Stoeckel 2003 *Sydney Law Review* 270.

henceforth to be in the public domain and is to be used in a way which will be of advantage to the public".⁷⁴⁴

A final word on the *Ward* case relates to "cultural knowledge [that] does not constitute a native title right or interest in relation to land or waters".⁷⁴⁵ Cultural knowledge is discussed below,⁷⁴⁶ where the Aboriginal Australians' spiritual connection with the land, and their customary law right to '*Speak for Country*' are considered.

Artists from these Aboriginal Australian communities have a special relationship with the land that require special mention. It follows from artists in these communities intimate relation with land that they cannot simply create works – they need to be initiated by a clan, gain TK from the elder artists, and develop a relationship of trust before they receive the authority to become artists.⁷⁴⁷ However, contemporary and urban Aboriginal Australians started to challenge this traditional approach, in terms of which the artists claim control or ownership of their creative works. These artists are increasingly moving towards a modern form of social organisation while still acting as respectful custodians of their communities' secret and sacred TK and TCE. This recent tendency can be ascribed to the digital age in which we live, where contemporary indigenous artists fully comprehend that there is an opportunity to disseminate their creative works into the public domain. These artists are frowned upon by the communities to whom they belong, who see this dissemination as a threat to their social embeddedness.⁷⁴⁸

4.2.6 Indigenous Australians and the Torres Strait Islanders

The Aboriginal Australians and the Torres Strait Islanders are ethnically and linguistically distinct indigenous people of Australia, both having a deep history of producing TK intimately linked to the diverse cultural geographies and the natural

⁷⁴⁴ *Western Australia v Ward (Aus)* para 778.

⁷⁴⁵ *Western Australia v Ward (Aus)* para 964.

⁷⁴⁶ See para 4.2.6.3.

⁷⁴⁷ Graber and Burri-Nenova (eds) *IP and TCE in a Digital Environment* 112.

⁷⁴⁸ Graber and Burri-Nenova (eds) *IP and TCE in a Digital Environment* 114.

environment of the Australian mainland and the 274 small islands which lie in Torres Strait. Three relatively recent Australian court cases involved how Aboriginal Australians and Torres Strait Islanders perceive the public domain and land, albeit in an indirect manner. These cases are discussed to contextualise the development of Australian jurisprudence dealing with IKS, after which the issues of direct relevance to this thesis are assessed. All three cases were heard before the *Ward* case and before Australia endorsed the *DRIP*. Australia initially refused to endorse *DRIP* in 2007 because of concerns that it "give[s] indigenous people exclusive rights over property, both intellectual, real and cultural, the Declaration did not acknowledge the rights of third parties ... under national law", but this position changed and in 2009 when the government endorsed the Declaration.⁷⁴⁹ Before discussing these three cases, it must be noted that the Australian courts have always been conscious of IPLCs' appropriation of TK and TCE. A case illustrating this is the *Gournditch-jmara* interlocutory case where the judge said in 1981 that a "legal interest is not necessary to establish [*locus standi*]; it need not be proprietary; a cultural or other interest may suffice".⁷⁵⁰ With this strong statement in mind the discussion now proceeds to the three mentioned cases.

4.2.6.1 Yumbulul, T v Reserve Bank of Australia, 1991

The first case is the *Yumbulul* case⁷⁵¹ which deserves detailed discussion for reasons that will become evident below – notably the notion of communal copyright. The discussion starts with the background to and facts of the case. Morning Star Poles are wooden poles, decorated with painted designs, feathers, and string. These poles are the manifestation of many of the Aboriginal Australians' traditions and sacred ceremonies. The rights to design, manufacture, and paint these poles, or paintings of them, are inherited, and the heir must also pass various levels of sacred and secret initiation and revelatory ceremonies. Morning Star Poles are used in public on ceremonial occasions and for inter-clan relationships but are made in secret in

⁷⁴⁹ Helfer and Austin *Human Rights and IP* 51.

⁷⁵⁰ *Onus v Alcoa Australia Ltd (Aus)* [1981] 149 CLR 27 4 (*Onus* case); Mr Onus acted on behalf of the Gournditch-jmara Aboriginal Community.

⁷⁵¹ *Yumbulul, T v Reserve Bank of Australia, Aboriginal Artists Agency Ltd & Anor (Aus)* (*Yumbulul* case).

men's ceremonial shelters. After these ceremonies, the poles, or paintings thereof, are in the public domain and are often sold to museums or as souvenirs, thus representing a major source of income for the Aboriginal Australians.⁷⁵²

Yumbulul became one of the more prolific designers and painters of Morning Star Poles, so much so that the Northern Territories Government of Australia also became one of his clients. In 1988 the Reserve Bank of Australia released an Aus\$10 note with a collage of Aboriginal Australian artwork, including a reproduction of one of Yumbulul's Morning Star Pole paintings. This reproduction was duly authorised in terms of the sub-licence that the Reserve Bank obtained from the Aboriginal Artists Agency Limited, a copyright collection society. From the evidence heard in court it was agreed that the collecting society complied with every material aspect of the standard form exclusive copyright reproduction licence that Yumbulul had signed.⁷⁵³

Yumbulul nevertheless approached the Federal Court of Australia, with the assistance of expert witnesses who argued, *inter alia*, that the mass mechanical reproduction of paintings of these traditional poles is contrary to the sacred and secret manufacturing traditions of the Aboriginal Australians and that Yumbulul had been misled by the collecting society's representative regarding the nature of the licence agreement. These arguments (and the case) were dismissed after the court cross-examined the applicant and his expert witnesses on the one hand, and on the other, the collecting society's representative.⁷⁵⁴ One commentator on this case, Oguamanam, argues that:

[The case] establish[es] the fusion of private and communal rights over intellectual creation between individual Aboriginal artists and their communities [and that] that fusion is important in unravelling a correlation of the public domain concept among [indigenous peoples].⁷⁵⁵

⁷⁵² *Yumbulul, T v Reserve Bank of Australia, Aboriginal Artists Agency Ltd & Anor (Aus)* paras 2-4.

⁷⁵³ *Yumbulul, T v Reserve Bank of Australia, Aboriginal Artists Agency Ltd & Anor (Aus)* para 8.

⁷⁵⁴ *Yumbulul, T v Reserve Bank of Australia, Aboriginal Artists Agency Ltd & Anor (Aus)* paras 4, 17 and 19.

⁷⁵⁵ Oguamanam 2018 *J World Intellectual Prop* 7.



Figure 4.1: One of Terry Yumbulul's Morning Star Poles⁷⁵⁶



Figure 4.2: The AUS\$10 note on which the painting of Yumbulul's Morning Star Pole was mechanically reproduced under licence.⁷⁵⁷

Oguamanam's comments about the case must be seen from his insight that there is a big chasm between the Eurocentric, American and Canadian construct of the public domain, and the way IPLC construct the public domain. He remarks that, on the one hand, Canadians, Europeans and Americans' "[d]eliberate blindness or contempt for Indigenous Peoples and various categories of the West's 'others' is part of the hallmark of colonialism".⁷⁵⁸ On the other hand he remarks that it is evident that the customary laws and practices of [indigenous and local communities] animate a robust jurisprudence on IP and contingent concepts, including the public

⁷⁵⁶ Pictures obtained from Janke *Minding Culture: Case studies on intellectual property and traditional cultural expressions* 81.

⁷⁵⁷ Janke *Minding Culture: Case studies on IP and TCE* 61.

⁷⁵⁸ Oguamanam 2018 *J World Intellectual Prop* 13.

domain.⁷⁵⁹ Oguamanam states that customary law must be appreciated by legislators and courts when dealing with customary practices, when he refers to the *Yumbulul* case where,

the total package of Aboriginal culture constituted in the theme, character, heritage, worldview, dreaming stories and other innumerable considerations represent the metaphoric canvass upon which the artist paints or creates.⁷⁶⁰

Helfer and Austin's commentary on the *Yumbulul* case relates to fundamental questions around proprietary rights and draws on the insights of Brown who proposed a framework of respect, rather than ownership, when dealing with indigenous cultures.⁷⁶¹ Helfer and Austin are correct when they argue that the clan members are merely temporary stewards of the IPLCs' culture, but the hypothetical question then posed is not that easy to answer – "Is '[intellectual] property' itself so fixed or immutable a concept that it cannot adapt to avoid the problem of 'owning culture'?"⁷⁶²

Graber sees the *Yumbulul* case as a textbook example of the unsettled confrontation between contemporary indigenous artists and the IPLC of which they are members. He bases his view on the deep divide between modern IP laws and the TK of IPLC. In this regard, three areas of confrontation are identified: i) the *Berne*-imposed copyright doctrine is not equipped to deal with secret and sacred TCE and TK; ii) simultaneous appropriation claims by contemporary artists and their clans contradict one another; and iii) the wide array of definitions of TCE and TK are in fact drawing one's attention to how far the traditional, liberal, and Western definitions of TCE and TK indeed are apart.⁷⁶³

It has been shown earlier that the *Berne*-imposed copyright regime provides for secrecy and the *droit moral* of authors which makes it difficult to understand Graber's point.⁷⁶⁴ The protection of sacred cultural property by conventional

⁷⁵⁹ Oguamanam 2018 *J World Intellectual Prop* 12-14.

⁷⁶⁰ Oguamanam 2018 *J World Intellectual Prop* 8.

⁷⁶¹ Helfer and Austin *Human Rights and IP* 481; The authors refer to Brown's book "Who owns native culture?", 2003.

⁷⁶² Helfer and Austin *Human Rights and IP* 481.

⁷⁶³ Graber and Burri-Nenova (eds) *IP and TCE in a Digital Environment* 99-100.

⁷⁶⁴ See para 3.2.2.3.

copyright is slightly more difficult because the community, not the authors, claim rights in and to the sacred cultural aspects. The *Berne*-imposed copyright regime only recognises the author's *droit moral* and, therefore, Graber might be correct to argue that copyright does not adequately address sacred aspects of TK and TCE.

Second, the appropriation of TCE and TK by one or more parties is indeed problematic. In this regard the legal status of communities is analysed in other parts of this thesis, and joint ownership between artists and communities was rejected by the judges in the *Bulun Bulun* case analysed below.

Graber's third concern about the international disagreement on definitions is indeed a valid point – a matter that is also raised when South Africa's IKS legislation is analysed.⁷⁶⁵ The notion of collective or communal ownership of sacred works by Aboriginal Australians, in this case, requires further elaboration, but this will be done after the discussion of the next case, which dealt with similar matters. For now and before moving to the next case law, it suffices to echo the judge's comment that:

Some Aboriginal artists have laboured under a serious misapprehension as to the effect of public display upon their copyright [and] that reproduction was, and should be seen, as a mark of the high respect that has all too slowly developed in Australian society for the beauty and richness of Aboriginal culture [and] Australia's copyright law does not provide adequate recognition of Aboriginal community claims to regulate the reproduction and use of works which are essentially communal in origin.⁷⁶⁶

4.2.6.2 Milpurrruru, G v Indofurn P/L, 1994

The second Australian case in which the public domain and the communal property of IKS were touched on is the *Milpurrruru* case.⁷⁶⁷ As with the previous case, the *Milpurrruru* case also dealt with paintings by Aboriginal Australians, but this time their unauthorised reproduction was on woollen carpets woven in Vietnam and exported to Australia for sale in the commercial market. Milpurrruru and seven other artists' works were duly licenced and/or sold to the Australian National Gallery. The National Museum of Australia reproduced these artistic works on Australian stamps

⁷⁶⁵ See para 5.13.

⁷⁶⁶ *Yumbulul, T v Reserve Bank of Australia, Aboriginal Artists Agency Ltd & Anor (Aus)* para 24.

⁷⁶⁷ *Milpurrruru, G & Ors v Indofurn P/L & Ors (Aus)*.

(allegedly as many as three million) and printed them in high gloss book format for the Australian Information Services.⁷⁶⁸ These legal reproductions found their way to Vietnam where the respondents copied the designs and wove them into woollen carpets that were then exported to Australia for sale. The court held, after considering each of the artworks on its merit and within the context of Aboriginal law and custom, that the reproductions were indeed a blatant infringement of copyright, inter alia, the infringement of section 37 of the Australian *Copyright Act*,⁷⁶⁹ and awarded the applicants damages and injunctive relief.⁷⁷⁰

It is important to appreciate that although the ruling was made by the court based on the Australian *Copyright Act*, the judges made a special effort to consider the customary law of Aboriginal Australians. In this regard, reference was made to the communal ownership of the sacred stories and traditions manifested in the artistic works, and that the traditional owners of such communal property "in time past put the offender to death".⁷⁷¹ The offender in this context being Aboriginal artists who gave 'unauthorised' permission for the reproduction of the works.

The court's appreciation of customary laws and practices while applying actual legislation illustrates how Australia is making a special effort to understand the boundaries of the public domain and communal property. In this regard Janke stresses this point when she says that:

Banduk had created the work for culturally appropriate display in a reputable art gallery. The reproduction of the artwork on carpets, where it would be walked on, is totally opposed to the cultural use of the central imagery and underlying knowledge in her work [and] although Banduk has the right to depict the image, she must be cautious of its reproduction, and in particular, any commercial exploitation.⁷⁷²

⁷⁶⁸ *Milpurrruru, G & Ors v Indofurn P/L & Ors (Aus)* paras 4-6.

⁷⁶⁹ Article 37 of the Australian *Copyright Act (Aus)* 63 of 1968. "the copyright in a literary, dramatic, musical or artistic work is infringed by a person who, without the licence of the owner of the copyright, ... imports an article into Australia for the purpose of: (a) selling, letting for hire, or by way of trade offering or exposing for sale or hire, the article; (b) distributing the article: (i) for the purpose of trade".

⁷⁷⁰ *Milpurrruru, G & Ors v Indofurn P/L & Ors (Aus)* para 166.

⁷⁷¹ *Milpurrruru, G & Ors v Indofurn P/L & Ors (Aus)* para 13.

⁷⁷² Janke *Minding Culture: Case studies on IP and TCE* 12.

	
Figure 4.3: Banduk Marika, <i>Danda and the Sacred Waterhole</i>	Figure 4.4: Carpet produced by Indofurn reproducing Banduk's work⁷⁷³

Janke's remark must be seen in the context of Banduk Marika's renunciation in seeing the story being reproduced on carpets where it would be "walked upon as if on my own backbone".⁷⁷⁴ The *Milpururru* case is therefore an excellent example of where the ruling was made within the legal framework of the Australian *Copyright Act*, but where culturally inappropriate and offensive aspects, or the *droit moral* of the community weighted in favour of the ruling.

4.2.6.3 Bulun Bulun v R&T Textiles, 1998

The third Australian case that is highly relevant to the public domain is the *Bulun Bulun* case.⁷⁷⁵ Under similar factual circumstances as the *Milpururru* case, the first

⁷⁷³ Janke *Minding Culture: Case studies on IP and TCE* 13; Banduk Marika is one of the applicants and Indofurn is the respondent in the *Milpururru* case. The reproductions of the photographs inserted here are to be found in Janke's report.

⁷⁷⁴ Janke *Minding Culture: Case studies on IP and TCE* 19.

⁷⁷⁵ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)*.

applicant, the indigenous artist and member of the Ganalbingu people, Bulun Bulun, sold his bark painting to the Maningrida Arts and Crafts Centre, which then resold the work to the Northern Territory Museum of Arts and Sciences. The bark painting was also reproduced, with the artist's consent, in a book. In all instances, the artist obtained the permission of senior members of his clan, the Ganalbingu people.⁷⁷⁶ R&T Textiles (the respondent) then made a derivative work with striking similarities and printed it on approximately 7 600 meters of fabric. After the case commenced, the respondent immediately admitted a breach of the first applicant's copyright, withdrew the infringing fabric from the sale, and consented to comprehensive permanent injunctions against future infringement. The respondent has since been placed in receivership and the Federal Minister for Aboriginal and Torres Strait Islander Affairs and the Northern Territory Attorney-General (second respondent) intervened – this intervention was of critical importance in that the second respondent's claims on customary laws were yet to be heard.⁷⁷⁷ These claims are considered.

The second applicant, Milpururru, a senior representative of the Ganalbingu people, claimed that the traditional owners of the Ganalbingu country situated in Arnhem Land in the Northern Territories enjoyed certain communal rights in the copyright in the work, distinct from the individual rights of the first applicant. These claims were eventually dismissed by the same judge who had heard the *Milpururru* case discussed above.⁷⁷⁸ More precisely, Milpururru claimed the following: "The traditional Aboriginal owners of Ganalbingu country are the equitable owners of the copyright subsisting in the artistic work", upon which the judge commented that,

⁷⁷⁶ Janke *Minding Culture: Case studies on IP and TCE* 51.

⁷⁷⁷ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 244.

⁷⁷⁸ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 244, 265. "Held, dismissing the second applicant's claim: (1) By virtue of s 8 of the Copyright Act 1968 (Cth) (the Act), copyright is entirely a creature of statute. Because s 35(2) of the Act provides that the author of an artistic work is the owner of copyright in it, save in cases of joint authorship, the Act precludes any notion of communal or group ownership in an artistic work unless that work is a "work of joint authorship" within the meaning of s 10(1) of the Act. To find otherwise would involve the creation of rights in indigenous peoples which are not otherwise recognised by the Australian legal system. (257G-258A, B-C)".

these proceedings represent another step by Aboriginal people to have communal title in their traditional ritual knowledge, and in particular in their artwork, recognised and protected by the Australian legal system.⁷⁷⁹

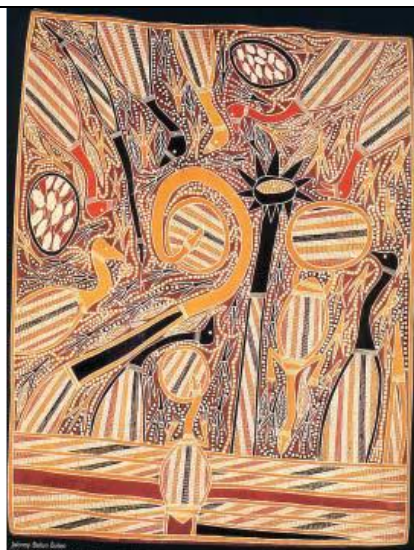


Figure 4.5: Painting by Bulun Bulun (first applicant), *Magpie Geese and Water Lilies at the Waterhole*.



Figure 4.6: Fabric produced by R&T Textiles (respondent), reproducing Bulun Bulun's painting⁷⁸⁰

Since this thesis concerns itself with the public domain, it is now necessary to distil the judge's systematic approach and rulings in five matters⁷⁸¹ to ensure that relevance to this thesis is persevered. Regarding sections 8 and 35(2) of the Australian *Copyright Act*,⁷⁸² the judge held that under these provisions, copyright is entirely a creature of statute and that the author (artist) of works is the copyright holder. He continued to say that one cannot read communal property rights into the

⁷⁷⁹ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 247.

⁷⁸⁰ Janke *Minding Culture: Case studies on IP and TCE* 55. Copyright in the reproductions of the photographs inserted here resides in Janke's report.

⁷⁸¹ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 244-245.

⁷⁸² Sections 8 and 35(2) of the Australian *Copyright Act (Aus)*. "8. Subject to section 8A, copyright does not subsist otherwise than by virtue of this Act. 35(2). Subject to this section, the author of a literary, dramatic, musical or artistic work is the owner of any copyright subsisting in the work by virtue of this Part".

Act in that to do so would constitute the inappropriate creation of law by the judiciary.⁷⁸³

The second matter relates to joint authorship⁷⁸⁴ or a fiduciary relationship, where the judge held that a prerequisite for joint authorship is the collaboration of two or more authors to jointly create a new work.⁷⁸⁵ Furthermore, original skill and labour are required to create a work, as such, a person (or community) that provides an idea is excluded from authorship. Therefore, authorship cannot reside jointly in the artist and the community.⁷⁸⁶

With joint ownership settled, some commentators posed the question of whether Bulun Bulun then holds the copyright as a fiduciary (or a steward). To appreciate this question one first needs to understand the terminology, which was clarified in the Australian *Hospital Products* case, where the characteristics of a fiduciary relationship were broadly defined as an undertaking or agreement, "to act for or on behalf of or in the interests of another person in the exercise of a power or discretion",⁷⁸⁷ which act will affect the rights and interests of that other person. Helfer and Austin's take on this fiduciary obligation is noteworthy. They argue that Bulun Bulun has an overriding duty to act in such a manner to preserve the integrity of the Ganalbingu culture as his fiduciary obligation. They conclude that the factual characteristics of this fiduciary relationship are mutual trust and confidence, which the Australian legal system should recognise and respect. However, it should not treat it as customary law forming part of the Australian legal system. In the event

⁷⁸³ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 256.

⁷⁸⁴ Section 10 of the Australian *Copyright Act (Aus)*. "Work of joint authorship means a work that has been produced by the collaboration of two or more authors and in which the contribution of each author is not separate from the contribution of the other author or the contributions of the other authors".

⁷⁸⁵ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 245. "A 'work of joint authorship' is a work which is produced by the collaboration of two or more authors in which the contribution of each author is not separate from the contribution of the other author or authors. A person who supplies an artistic idea to an artist who then executes the work is not, on that ground alone, a joint author with the artist. Joint authorship envisages the contribution of skill and labour to the production of the work itself".

⁷⁸⁶ Helfer and Austin *Human Rights and IP* 490.

⁷⁸⁷ Helfer and Austin *Human Rights and IP* 491, where the authors quoted from *Hospital Products v United States Surgical Corporation (Aus)* [1984] 156 CLR 41, 96–97 (*Hospital Products* case).

they argue that Milpururru proceedings on behalf of the Ganalbingu clan, should be dismissed.⁷⁸⁸

Ritual knowledge and cultural property was the third matter discussed by the judge. With authorship and copyright in creative works settled, the judge recognised that in terms of Aboriginal Australians' customs and traditions, it is not inequitable to expect from these authors to obtain consent from their clans for the commercial exploitation of works emanating from ritual knowledge. Furthermore, the clans are within their traditional rights, albeit *in personam*, to expect these authors to ensure that such works are exploited in a manner that is not contrary to the laws and customs of the IC.

Helfer and Austin are mindful of the desire of Aboriginal Australians to assert a right to control who can tell and use their stories and symbols to ensure cultural survival. This desire resonates with moral rights as protected in the *Berne Convention* and introduced to the Australian *Copyright Act* in 2000. However, this desire is not a proprietary right to culture. The authors proceed to support three other scholars who advocate the adoption of a principle of stewardship to accommodate the various interests at stake in cultural property debates. These scholars argue that

without rejecting the force or utility of ownership, we propose that cultural property claims are better explained and justified through a stewardship that effectuates the dynamic pluralism of group-oriented interests.⁷⁸⁹

In summary, the judge recognised that the community cannot own culture, but agreed that there may be "extreme cases where equity will intervene to impose a constructive trust to allow the community to sue in their own names". This is commendable, but also challenging, as Raath points out when he criticised the *Swakopmund Protocol's* effort to define IPLC as juristic persons.⁷⁹⁰ Customary law was also considered by the judge. The judge made a very progressive statement regarding the formal recognition of customary law in Australia when he held that:

⁷⁸⁸ Helfer and Austin *Human Rights and IP* 492.

⁷⁸⁹ Helfer and Austin *Human Rights and IP* 496, where the authors refer to Carpenter, Katyal and Riley.

⁷⁹⁰ See para 4.5.2 where Raath comments on this matter.

Australian courts will receive and act upon evidence of the rights, interests and obligations of Aboriginal people under customary law where such evidence is used as the basis for the foundation of rights in the Australian legal system.⁷⁹¹

In coming to this statement, he criticised an earlier case in which another judge observed that "it is not possible to use evidence about indigenous customs and traditions to operate as 'customary law' in opposition to or alongside Australian law"⁷⁹² and then he continues to say that the evidence about Ganalbingu law and customs is admissible. Australia's growing acceptance of customary law is supported in this thesis.

Lastly, native title rights and land ownership was considered. The judge firmly held that the ownership of land (or native title therein) and the ownership of other property, such as copyright in artistic works, are separate statutory and common law rights.⁷⁹³ He then discarded any customary law arguments that attempt to challenge this fundamental principle of the Australian legal system and the common law, but he was not unsympathetic. His approach is commendable in the sense that he attempts to understand the fundamental legal principles behind the second plaintiff's assertion that

the claimed equitable interests in the copyright subsisting in the artistic work were incidental to the applicants' claimed land ownership, and to their perception of their relationship with the land [and] the communal interests of the traditional Aboriginal owners in cultural artworks [should] be recognised under Australian law.⁷⁹⁴

The judge then concluded by confirming that Aboriginal customary laws relating to ownership of artistic works have indeed survived the introduction of common law in Australia, but that these customary laws cannot create binding obligations for other Australian citizens.

⁷⁹¹ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 245.

⁷⁹² *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 248. The Judge referred to *Walker v New South Wales (Aus)* (1994) 182 CLR 45 at 49-59 (*Walker* case).

⁷⁹³ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 245. "The principle that the ownership of land and the ownership of artistic works are separate statutory and common law institutions is a fundamental principle of the Australian legal system which precludes any argument, based on customary law, to the contrary".

⁷⁹⁴ *Bulun Bulun v R & T Textiles Pty Ltd (Aus)* 256.

Four years after the *Bulun Bulun* case, cultural knowledge as indigenous property of Aboriginal Australians re-surfaced in the *Ward* case, where it was once again confirmed that "cultural knowledge does not constitute a native title right or interest in relation to land or waters".⁷⁹⁵ Cultural knowledge has never been defined, and we need to draw on the use of the term in the *Ward* case, as well as the Australian Law Reform Commission (ALRC), which later also started using the term. From these sources, Janke summarises cultural knowledge as an Australian umbrella term to cover all types of IK, and may be defined as an "intense affiliation with land and waters and includes forms of expression like dance, art, stories and ceremonies, to knowledge of the medicinal properties of plants and genetic resources".⁷⁹⁶ The *Ward* case also dealt with the Australian Aboriginals' customary law right to *Speak for Country*.⁷⁹⁷ As with cultural knowledge, the right to *Speak for Country* was accepted by the court as a core concept in the traditional and customary laws of Aboriginal Australians that should not be misconstrued as a proprietary interest in land but rather as a relationship with the land.

Australian Aboriginals' proprietary claims in respect of cultural knowledge and the right to *Speak for Country* expose the divide between their and Western concepts of the public domain. In practice, the *Ward* case put a halt to Australian Aboriginals' perceived ideas of the physical and intellectual boundaries of the public domain. For example, pastoral leases cannot be blocked by Australian Aboriginals who are of the view that they continue to have the traditional right to say who could or who could not come onto the land in question once their rights were partially extinguished. With fishing rights, the court said that "there is a fundamental inconsistency between the public right to fish in tidal waters and a native title right and interest said to amount to an exclusive right to fish those waters",⁷⁹⁸ hence the ruling that

⁷⁹⁵ *Western Australia v Ward (Aus)* para 964.

⁷⁹⁶ Janke and Sentina *Indigenous Knowledge: Issues for protection and management* 12.

⁷⁹⁷ Stoeckel 2003 *Sydney Law Review* 257; According to Stoeckel, the right to *Speak for Country* is an imprecisely defined Aboriginal concept in the Australian legal system. "The concept embodies the broad notion that indigenous people are custodians of the physical and spiritual attributes of the land. It includes several specific rights such as granting permission to enter upon the land".

⁷⁹⁸ *Western Australia v Ward (Aus)* para 388.

exclusivity has been extinguished. The boundaries of the Australian physical public domain in respect of the land and sea correlate with other jurisdictions like South Africa. When these arguments regarding the physical boundaries of the public domain are extrapolated to the intellectual public domain, one cannot deny the complexities that arise. However, South Africa might find relief in the respectful way Australian courts approach access to land. For example, sites where artworks on rock are located, or ceremonies are performed, or where traditional laws and customs are manifested and where there is a recognisable connection with the land, are duly protected by means of heritage-related legislation.⁷⁹⁹ This approach of accommodating the intellectual public domain in a physical space will resonate well with scholars such as Raath who advocate such an approach for South Africa.

4.2.7 Genetic resources, traditional medicine and biopiracy

The traditional medicinal knowledge of the nyardoo and majala trees have already been discussed. The abuse (biopiracy) of GR by other countries is also a threat to IKS in Australia. The akadu plum (*Terminalia ferdinandiana*), which is known for its high concentration of vitamin C, is one such plant that is allegedly being misappropriated by foreign companies. This is a classic example where certain properties of the active compound are patented, and where the plant is propagated and commercially available at nurseries worldwide, leaving no recourse to IKS protagonists to negotiate benefit sharing agreements. Before Australia signed the *Nagoya Protocol*, the plant's virtues were also in the public domain. Although the virtues of the akadu plum may be in the public domain, Janke argues that examples like this should be used to fast-track Australia's legislative efforts to comply with the provisions of the *CBD* and the *Nagoya Protocol*, and in doing so contribute to solutions to IPLCs' struggle for self-determination.⁸⁰⁰

This thesis follows a transdisciplinary approach. Therefore, the way Packer, an ethno-pharmacologist, and Hunter, a medical doctor, recently approached a project in Australia to link GR and TK of IPLC with biomedical science is commendable.

⁷⁹⁹ *Western Australia v Ward (Aus)* para 59.

⁸⁰⁰ Janke 2018 *International Journal of Rural Law and Policy* 21.

Briefly, the research team assessed plants from two Australian indigenous communities for antioxidant and antimicrobial properties to develop modern medicinal and commercial translations of traditional medicinal knowledge.⁸⁰¹ This clear commercial goal would not have been possible had the scientific team been ignorant of the social embeddedness of these communities. The team essentially ensured that a common-sense approach towards ethics, trust, and mutual respect was followed, putting the necessary bilateral agreements in place between the research team and the two communities, with full appreciation of the cultural structures and protocols. Although the PGR that were screened have not yet resulted in new medicines, the research group reported that

community-driven scientific investigation of traditional medicinal knowledge can facilitate culturally meaningful outcomes, with potentially wide-reaching direct and indirect benefits [and recommend that] Australia would benefit from guides regulation ethical commercialisation.⁸⁰²

Of course, this approach resonates with any legal scholar as this research group's desperate plea for guidelines is nothing less than a catalyst for the Australian legislator to align policies and legislation with the *CBD* and the *Nagoya Protocol*.

4.2.8 Geographical indicators and other marks

In the 1990s, the former National Indigenous Arts Advocacy Association (NIAAA) developed an Australian indigenous arts certification system. Unfortunately, this representative body for indigenous artists closed its doors in 2002.⁸⁰³ The

⁸⁰¹ Packer *et al* 2019 *Journal of Ethnobiology and Ethnomedicine* 5; The two communities are the Mbabaram community, Far North Queensland and the Yirralpa Rangers, North East Arnhem Land, Northern Territory.

⁸⁰² Packer *et al* 2019 *Journal of Ethnobiology and Ethnomedicine* 2-11.

⁸⁰³ Janke *Minding Culture: Case studies on IP and TCE* 134, 148. "Label of Authenticity: Denotes that a product or service is derived from a work of art created by an Aboriginal or Torres Strait Islander person or people, and has also been reproduced, or produced and manufactured, by Aboriginal or Torres Strait Islander people. Collaboration Mark: Denotes that a product or service is derived from a work of art which has been created by an Aboriginal or Torres Strait Islander person or people who satisfy the definition, and which has been reproduced or produced and manufactured under fair and legitimate licensing arrangements with non-Aboriginal and Torres Strait Islander people. Indigenous Arts Retail Licenses: The licence's notice reproduces both the Label and the Collaboration marks in the form of a sticker to be affixed onto shop windows or doors. The Notice indicates to consumers that the retailer supports users of the Label of Authenticity and the Collaboration Mark".

certification comprised of three mechanisms: a label of authenticity, a collaboration mark, and indigenous arts retail licences. According to Janke, this system contributed to eradicating traders who either claimed to be the authentic artists or who copied and traded in fakes and, by so doing, deprived indigenous Australian artists of at least Aus\$100 million per year.⁸⁰⁴

In 2018 the Australia Council for the Arts instituted a consultation process to establish a National Indigenous Arts and Cultural Authority (NIACA) with similar objectives as the NIAAA.⁸⁰⁵ Although this consultation process is underway at the time of writing this thesis, it should be noted that the new initiative focuses on arts (TK and TCE) and that GR is excluded (as was the case with the former NIAAA). This exclusion of GR is unfortunate in that it limits the usefulness of Australia's experience in this regard in respect of South Africa, since SA's abundance of GR calls for a similar system, but one which also includes GR as part of a functional IKS regime.

Another concern about the Australian use of trademarks is that as far as AOO and GI are concerned, the Australian wine and spirits industry already complies with the requirements of both the *TRIPS* and the *Lisbon Agreements*.⁸⁰⁶ Therefore, it is not clear why these instruments have not been used to address the certification of Aboriginal Australians' IKS in the first instance. However, Frankel has a possible explanation for this. She points out that in the Western context, GI owners are a group of independent and qualified businesses (individuals or legal entities) that use the GI to further their business objectives using GI as the collective. As opposed to the Western viewpoint, in the traditional IPLC context, collective ownership resides in the community with customary laws that govern which individual can make certain uses of knowledge and in what ways.⁸⁰⁷ She might be wrong when she argues that GI cannot work for IPLC because they "seek to protect their traditional knowledge in order to provide their communities with financial resources and to

⁸⁰⁴ Janke *Minding Culture: Case studies on IP and TCE* 136.

⁸⁰⁵ Australia Council for the Arts 2018 <https://niaca.com.au/about-national-indigenous-arts-and-cultural-authority/>..

⁸⁰⁶ Ayu 2006 *MqJBL* 1, 5.

⁸⁰⁷ Frankel *The Mismatch of Geographical Indications and Innovative Traditional Knowledge* 8.

have a stake in the development of innovative uses of traditional knowledge."⁸⁰⁸ GI provide exactly for this – financial resources to further the objectives of all those people who can benefit from GI, be it individuals, businesses, or IPLC.

The Australian wine industry serves as a good example of how GI can be utilised for the benefit of all Australians. Australia's wine industry is relatively new compared to France. The French wine industry uses *terroir* to its advantage to unlock the commercial value associated with *appellation d'origine controlee*. On the other hand, Australia is 14 times larger than France, and it is therefore difficult to comprehend how Australia can use *terroir* as successfully as the French. Therefore, Australian winemakers see GI to improve the collective standards of quality among regional stakeholders because, after all, "nobody wants to make bad wine".⁸⁰⁹ Differently phrased, these farmers appreciate that they cannot compete with the French *terroir*. However, by sharing best practices among themselves, they can, as a collective, improve the region's image while merely using the GI as a collective mark to take the message to the public. However, GI and the associated attributes of products do not work for all products. Wine is highly romanticised worldwide, but the same cannot be said of other products like apples. For example, it is inconceivable that tourists would beat a path to a farm's apple cellar to buy 100 per cent pure apple juice. Regrettably, the same applies to TCE in some respect. Visitors to Australia will, as a last-minute thought, buy indigenous artefacts at the airport's international departure hall and seldom make an effort to visit traditional Aboriginal villages, while the opposite is true of tourists buying wine.

4.2.9 Concluding remarks on Australia

Australian law reform in respect of IKS can be broadly divided into the periods before, around, and after the promulgation of the *Native Title Act* of 1993. Matters pertaining to IP were dealt with in the first two periods, where the *Yumbulul*, *Bulun*

⁸⁰⁸ Frankel *The Mismatch of Geographical Indications and Innovative Traditional Knowledge* 15.

⁸⁰⁹ Drahos "Sunshine in a Bottle? Geographical Indications, the Australian Wine Industry, and the Promise of Rural Development" 278.

Bulun, and *Milpururru* cases dealt satisfactorily with the chasm between IP and IKS.

During the second period, the *Ward* case that was heard ten years after the *Native Title Act* came into force, had to deal with the intimate role that the land and sea fulfil in indigenous traditions and customary law. Two matters emerged in this case. The first relates to what native title entails, as defined in section 223 of the Act, which requires clarification because there is a diversity of interests in any native title claim. The second matter relates to the judiciary's ignorance of international precedent but evolving support of customary law. Against this backdrop, the Australian legislature was tardy in appreciating the importance of international human rights instruments and only as late as 2009 acceded to the *DRIP*. As more and more native title lawsuits were heard, the Australian government tasked the ALRC to make recommendations on native title law reform in Australia. This was done in 2015.

The ALRC's report recommended reforms to section 223,⁸¹⁰ referring to two post-*Ward* cases that dealt with native title and land as justification.⁸¹¹ Concerning international precedent, the commission also recognised that the scope of native title rights and interests also situated the law in a broader context of the common law, international law, and the law in comparative jurisdictions.

On the IP front, in 2017, the Australian Department of Industry, Innovation and Science commissioned a report on IK. Janke, the renowned IKS scholar who was the primary author of this report, identified the following issues that remain to be addressed in the Australian IKS regime: i) the misappropriation of TK and TCE such as arts and crafts; ii) the misuse of indigenous languages, words, and clan names; iii) recording and digitisation of IK; iv) the use of GR associated with TK; and v) the

⁸¹⁰ Australian Law Reform Commission *Connection to Country: Review of the Native Title Act 1993 (Cth)* recommendation 8-1.

⁸¹¹ These two cases are: *Akiba on behalf of the Torres Strait Regional Seas Claim Group v Commonwealth of Australia (Aus)* [2013] HCA 33 (*Akiba* case); and *Western Australia v Brown (Aus)* [2014] HCA 8 (*Brown* case).

derogatory use of sacred and secret TK.⁸¹² One concern that surfaces on reading this report is that there is a dire need to deal with IKS definitions. This is not strange as WIPO and South Africa, for example, are also grappling with consistency in this regard. Janke does find her way through these inconsistencies and concludes that, the Aboriginal and Torres Strait Australians simply want to be respected. In this regard, she proposes that Australian IKS policies and laws must impact on existing IP and other legal frameworks and that these interventions should address the following: i) regulated access to IK to ensure that misappropriation of IK does not occur; iii) open-source content; iii) fair use; iv) government programmes and public accessibility; and finally, v) promote and maintain a healthy public domain.⁸¹³

4.3 Republic of India

4.3.1 Introduction

The Republic of India (hereafter India) is a former British colony that became an independent democratic republic with a Bill of Fundamental Rights in 1947.⁸¹⁴ India's ancient history, dating from 6000 BC when the first human settlements were recorded, to today when approximately one fifth of the world's population lives in India, makes the inclusion of this country very important in any legal study.

Some historical markers have influenced the Indian legal system, for example, the current common law system, which can be attributed to the Dutch and British colonial periods (and even the Roman Empire). Gandhi's influence on India's journey in the early 1900s to become an independent republic must also be noted. His philosophy of *satyagraha* (holding onto truth) later influenced India's perspectives on international law.⁸¹⁵ Furthermore, customary laws are often based on the Islamic and Hindu laws that are very much part of the day-to-day life of the rural Indian people. All these influences on the Indian legal system can be attributed to India's strong trading history. In ancient times, trading between Alexander the Great,

⁸¹² Janke and Sentina *Indigenous Knowledge: Issues for protection and management* 9-10.

⁸¹³ Janke and Sentina *Indigenous Knowledge: Issues for protection and management* 25.

⁸¹⁴ *Constitution (India)* 1947, India.

⁸¹⁵ Burra and Babu (eds) *Locating India in the Contemporary International Legal Order* 9.

Islamic countries, and the Roman Empire across the famous overland silk, gold, and spice routes, and later trading with the Dutch and British across the sea routes opened by the Portuguese seafarers.⁸¹⁶ Today India has a common law system very similar to South Africa and is also classed as a developing country.

Apart from spices, silk, and precious metals, textiles (notably Kashmir shawls) were a high-value commodity extensively traded since ancient times. As will be explained in one of the case studies below, the TK and trade secrets embedded in the manufacturing processes of these ancient textiles, and how the Indian traders protected these secret processes inform how India deals with IKS in the modern world. Ironically, two historic developments severely impacted the ancient Indian textile industry. One was the French and European fashion industry that changed (as always), resulting in an implosion in the demand for Indian textiles and design patterns in 1830.⁸¹⁷ The other was the early stages of the first industrial revolution, during which the European countries started to develop their own weaving and spinning techniques, all backed by patents and design rights dating from as early as 1733.⁸¹⁸ During this time, the British even sent their artisans to Bengal, the textile heartland of India, where technology and skills transfer further impoverished the poor weavers and spinners of India.⁸¹⁹

In more recent years India has become a force among developing countries recognised by developed countries. For example, India was one of the developing countries that successfully lobbied for the amendment of article 15(4) of the *Bern Convention* in 1971, attempting to include expressions of folklore as a category of copyright.⁸²⁰ Although India failed to include the express use of the term 'folklore', it can be proud of its achievement at that time.⁸²¹

⁸¹⁶ Kulke and Rothermund *A History of India* 10, 354, 361.

⁸¹⁷ Kulke and Rothermund *A History of India* 209.

⁸¹⁸ Bellis 2019 <https://www.thoughtco.com/textile-machinery-industrial-revolution-4076291>.

⁸¹⁹ Kulke and Rothermund *A History of India* 232; "During this period the export of textiles from Bengal dwindled from £1.4m worth in 1800 to only £0.9m in 1809. Imports of British goods increased over the same period - from £6m to £18m".

⁸²⁰ See the discussion of a 15(4) of the *Berne Convention (1886)* in para 3.4.1.

⁸²¹ Arewa 2006 *Marq I P L Rev* 163.

These developments set the scene for interesting discussions on the public domain and IKS in India that will now commence with case studies on the topic.

4.3.2 Case studies

Before undertaking a detailed legal study, it is necessary to contextualise India's perspectives on IKS through five case studies. The first case study relates to the ancient textile industry briefly alluded to above; the second and third relate to plants and trees, while the fourth case study addresses the protection and dissemination of IKS for the benefit of the Indian people. Lastly, yoga, an ancient Indian practice included in UNESCO's representative list of the Intangible Cultural Heritage of Humanity, is considered. These case studies are conveniently grouped, but in the paragraphs that follow, regular cross-references will be made to avoid duplication while analysing the legal issues raised in the respective studies.

4.3.2.1 Case study: Textiles – the Kashmir shawls

Archaeological evidence and anecdotal writings from the time of Alexander the Great suggest that the Indian textile industry dates to 3000 BC in the Indus Valley, where cotton grew at that time. During the ancient and medieval periods, the textile industries were politically controlled by regional rulers, and the fabric names represented the regions where they were woven.⁸²²

Kashmir shawls, woven from the hair of pashmina goats, evolved as the most precious textile in India from the first century reaching its height during the 17th to 19th centuries, supported by the lucrative French fashion industry. Apart from the beautiful cone (paisley) design patterns, delicate colours and embroidery, the unique qualities of the underbelly wool of the pashmina goats and the complex and labour-intensive hand-weaving process that takes more than six months to complete added to the rarity and high value of these shawls.⁸²³

⁸²² Wilson 'History of Textiles' <<http://char.txa.cornell.edu/IndianTex.htm>> 1.

⁸²³ Wilson, 'History of Textiles' 1.

This case study's relevance to this thesis is: First, from ancient times the Indians appreciated the importance of geographical region of origin. Ironically, this practice of associating textiles with their geographical region of origin suggests that the Indians 'invented' the GI.⁸²⁴ This term is currently supported by many Western countries and entrenched in the *TRIPS Agreement*.⁸²⁵ Second, trade secrets and the protection of TK were very much part of their manufacturing and trading culture. Ironically, the Indian TK was eventually threatened by the Western patent system in which inventors obtain monopolies in return for putting their inventions in the public domain.

4.3.2.2 Case study: Turmeric plants and patent

Turmeric (*Curcuma aromatic*) is a member of the ginger family that is indigenous to India and Indonesia. Besides being used as a culinary spice, its roots are known to have antiseptic properties and are commonly used as traditional medicine for various sprains and inflammatory conditions. The active chemical molecule found in Turmeric is curcumin (C₂₁H₂₀O₆). In 1995 a patent was granted to the Mississippi Medical Centre in the USA for turmeric as a "method of promoting healing of a wound by administering turmeric to a patient afflicted with the wound".⁸²⁶ The Indian Council of Scientific and Industrial Research (CSIR) successfully challenged the validity of the patent on the grounds that the claims were in the public domain.⁸²⁷

The Turmeric case brought the following matters to the fore: First, in the USA prior art disclosure is a requirement for patentability. However, the prior art must be in the public domain and in a tangible format. Second, the lack of well documented knowledge on Turmeric hampered the CSIR in its endeavours to have the patent revoked based on prior art in the public domain.⁸²⁸ As a result there has been an

⁸²⁴ GI identify a good as originating in the territory, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.

⁸²⁵ Article 22 of the *TRIPS Agreement* (1994).

⁸²⁶ Das and Cohly, *Use of turmeric in wound healing* (1995).

⁸²⁷ Dhar and Anuradha 2005 *Economic and Political Weekly* 1351.

⁸²⁸ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 135.

increased awareness in the Indian government and by the people of the need to document TK in the public domain.

4.3.2.3 Case study: Neem trees and patents

The neem tree (*Azadirachta indica*), a member of the mahogany family, is native to the Indian subcontinent.⁸²⁹ It is known to have organic pesticide properties, and many of its medicinal and cosmetic uses are based on its antibacterial and antifungal properties.

A number of neem-related patents were filed in the USA and Europe after the company Grace WR & Co identified more than 60 valuable compounds, one of which is *azadirachtin*.⁸³⁰ Notably, the patents held by Grace WR & Co came under scrutiny by both the USA patent authority and the European patent office (EPO) after the Indian government, together with a group of Indian non-government organisations (NGOs), challenged the novelty claims of the patent. Briefly, Grace WR & Co's USA patent⁸³¹ entailed a method of creating a stabilised *azadirachtin*⁸³² in solution and the stabilised solution itself. The European patent⁸³³ of Grace WR & Co claimed a novel insecticide and foliar fungicide derived from neem seeds. The EPO patent was revoked after it was established that the claims did not fulfil the novelty requirements in that most of the information was in the public domain.

The neem case raised the following issues: although the patent has been revoked, the active compound is yet to be synthesised. As such, the sustainable management of GR, namely the cultivation of neem trees and the harvesting of neem seed remain very important issues when IKS are considered in the Indian subcontinent. Interestingly, some other patents relating to neem trees have been filed by Indian

⁸²⁹ The Indian subcontinent comprises of the following countries: India, Nepal, Pakistan, Bangladesh, Sri Lanka, and the Maldives.

⁸³⁰ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 9.

⁸³¹ Carter *et al*, *Storage stable azadirachtin formulation* (1992).

⁸³² *Azadirachtin* is the active compound found in the neem trees; The stabilisation of this active compound is crucial for its commercial applications.

⁸³³ Locke *et al*, *Method for controlling fungi on plants by the aid of a hydrophobic extracted neem oil* (1994).

citizens and companies, which indicates that the appropriation of IKS is not exclusively a Western issue.

4.3.2.4 Case study: Honey Bee Network

The Honey Bee Network in the State of Gujarat, India, seeks to foster the dissemination of IKS among the Indian people and the wider world. Unlike the approach of many IPLC, the Honey Bee Network firstly register any IKS to an individual rightsholder, creator or inventor, after which the IKS is disseminated in a responsible manner. This is done by ensuring that individual rightsholders, creators or inventors share in incentives and benefits that may accrue due to the dissemination of the knowledge in the public domain. Since 1997 Honey Bee Network has documented more than 10 000 innovations in its database.⁸³⁴

The Honey Bee Network model, which is a private initiative, has been embraced by many Indian organisations and government departments⁸³⁵ which realise that the "linkages between excellence in formal and informal knowledge systems [are important] in a bid to help India to become a global leader in sustainable technologies".⁸³⁶ Notably, the Indian National Innovation Foundation (NIF) now works towards a strategy to use the Honey Bee Network database as a clearing house in its IKS initiatives and strategies.

4.3.2.5 Case study: Yoga in the public domain

India claims yoga⁸³⁷ as part of its traditional medicinal knowledge, which originated on its land and is acknowledged by UNESCO as a human treasure.⁸³⁸ As a result of its unprecedented potential to attain basic health and happiness in life, Western

⁸³⁴ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 139.

⁸³⁵ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 139, 261; Indian National Innovation Foundation (NIF); Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI); Grassroots Innovation Augmentation Network (GIAN).

⁸³⁶ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 139.

⁸³⁷ The practice of yoga has been inherited from a several thousand-year-old ancient South Asian tradition that trains the embodied mind to accept truth through a combination of physical and mental practices. Yoga as a holistic health system is regarded as a symbol of India's ancient civilisational heritage.

⁸³⁸ Sidhu 2017 *Environmental Policy & Law* 99.

entrepreneurs endeavoured to claim specific aspects of yoga and to register IP claims in countries such as the USA. As a result, India has developed a creative mechanism to protect its yogic knowledge using a database of TK, namely the Traditional Knowledge Digital Library (TKDL). The TKDL essentially places various aspects of yoga *asanas* in the public domain, and in doing so, intentionally destroys the novelty requirement for patentability.

According to literature, to date, more than 220 patents have been denied because of yoga *asanas*'s inclusion in the international patent classification system, although some IP rights have been granted.⁸³⁹ Another aspect of the TKDL is that it is available in English, German, French, Japanese, and Spanish on a confidential basis, to patent offices worldwide who are required to conduct novelty searches before granting patents. The patentability of yoga *asanas* also went to litigation in the USA.⁸⁴⁰ India, therefore, rightfully believes that TKDL provides a bridge between modern science, modern medicine, and traditional medicinal knowledge.⁸⁴¹ Reddy is quoted as having said that the Indian TKDL is "the most self-conscious example of modern twenty-first century archive creation to make traditional knowledge inalienable from the public domain".⁸⁴²

From these case studies it can be derived that India has a long history of codifying knowledge, dating back to the ancient Vedic scriptures. This culture of transferring knowledge in a tangible format in the public domain, places India well in the IKS discourse, as is evident from the way in which they codified yogic asanas and use their TKDL to manage novelty claims by patent seekers worldwide. With these case studies in mind, the public domain in India will now be investigated.

⁸³⁹ According to Sidhu, "in the US alone, according to its IP agencies, there are 2,300 trademarks on yoga, 150 yoga related copyrights and 130 patents even on yoga accessories".

⁸⁴⁰ *Open Source Yoga Unity v Choudhury (USA)* 74 USPQ2d 1434 (2005) (*Open Source Yoga* case); Also see *Bikram's Yoga College of India v Evolation Yoga (USA)* 803 F3d 1032 (9th Cir) (2015).

⁸⁴¹ Sidhu 2017 *Environmental Policy & Law* 103.

⁸⁴² Sidhu 2017 *Environmental Policy & Law* 103.

4.3.3 *The public domain in India*

Sunder, an IP scholar with a deep understanding of India, draws on Boyle's insights when she analyses the public domain in India. Taking account of India's extreme poverty levels, she echoes other scholars who call for IP and TK to be approached in the context of "broader societal interests and development-related concerns, and not just from the narrow lens of economic incentives for innovation".⁸⁴³ She starts her argument by emphasising the dynamic nature of culture, referring to the hand silk weavers of Mysore who improved their processes to include waterproof silk *saris* as part of their product range; and the marble artisans from Agra who now also produce dinnerware. These local communities' ability to adapt to modern society's market needs is evidence of a healthy and dynamic culture where "people move, intermarry, share ideas, and modify their skills and products to the shifting demands of the market and their culture".⁸⁴⁴ With poverty a common reality among these communities, she proceeds to suggest that the current Western approach to addressing these poor people's concerns by stimulating technology transfer, foreign direct investment, and benefit sharing should rather be replaced with a public domain that stimulates the wealth of creative knowledge and capacity for knowledge-creation among the poor communities. This will facilitate the emergence of a public domain that will serve as a haven for the raw material required to create and to innovate, or as Sunder says, to cultivate tradition.⁸⁴⁵

This insight is crucial because contemporary artists or traditional artisans, for example, can live in big cities and preserve TK through commercialisation and, as Sunder suggests, use GI to their advantage. This can only happen if the public domain is trusted as the commons of raw material, as Boyle suggests. The utilitarian failures and successes of the case studies above led to Sunder's comment that the public domain is not always available to the poor. She refers to the "romance of the commons: the belief that because a resource is open to all by force of law, it will

⁸⁴³ Sunder 2007 *Law & Contemp Probs* 102.

⁸⁴⁴ Sunder 2007 *Law & Contemp Probs* 104.

⁸⁴⁵ Sunder 2007 *Law & Contemp Probs* 110.

indeed be equally exploited by all",⁸⁴⁶ before she suggests that countries with poor populations should not negate the developmental goals of the *TRIPS Agreement*,⁸⁴⁷ or the use of GI.⁸⁴⁸

Ghosh, an American IP scholar who has conducted extensive research on TK in India, framed the TK and public domain issue in a very intriguing manner. He sketched the following hypothetical scenario:

What if a traditional knowledge holder has the cure for cancer? What if [that] traditional knowledge holder decides not to market [that] product? A Western company wants to help in marketing the cure and is willing to negotiate with the holder for the rights. The knowledge holder believes that such marketing uses of the cure [are] not appropriate. Furthermore, he believes that the knowledge should only be used for the ritual endemic to his group.⁸⁴⁹

Ghosh then argues that in this hypothetical case, one assumption could be that the price of traditional rightsholder's TK is so high that no one can afford it, not even rich developed countries. In Ghosh's attempt to understand the public domain in this hypothetical case, he took a commercial approach linked to the philosophical approach on TK and TCE. Both approaches are now considered.

Under the commercial approach, Ghosh refers to Monsanto's infamous terminator-seed controversy.⁸⁵⁰ Monsanto pledged not to commercialise this patented technology after a controversial firestorm of opposition worldwide, with the strongest criticism revolving around the potential impact of the technology on small farmers in developing countries such as India, where seed saving and planting are still common practice.⁸⁵¹ However, once their GMO patents expired, Monsanto used contract law to extend their rights and prevent other seed technologies from falling

⁸⁴⁶ Sunder 2007 *Law & Contemp Probs* 104.

⁸⁴⁷ Preamble of the *TRIPS Agreement* (1994). "Recognizing the underlying public policy objectives of national systems for the protection of intellectual property, including developmental and technological objectives".

⁸⁴⁸ These aspects are further considered in para 4.3.8.

⁸⁴⁹ Ghosh 2003 *Cardozo Journal of International and Comparative Law* 508.

⁸⁵⁰ 'Terminator technology' is the term used by environmental activist for Genetic Use Restriction Technology (GURT) that shuts off the reproductive abilities of seeds, making second generation seeds sterile.

⁸⁵¹ Patnaik, Jongerden and Ruivenkamp 2018 *J World Intellectual Prop* 158; Also see Science Literacy Project 2016 <https://gmo.geneticliteracyproject.org/FAQ/whats-controversy-gmos-terminator-seeds/>.

within the public domain. Had it not been for violent protests by Indian farmers in the streets of Bangalore, Monsanto may have succeeded in controlling the public domain.⁸⁵² Ghosh says that this example illustrates the "complex relationship between corporate power, the public domain, and intellectual property",⁸⁵³ and that different countries would use different legal tools to find a balance between these countervailing powers in the global marketplace. Here he refers, *inter alia*, to the USA's Constitutional mandate that IP law should serve "to promote the progress of science and the useful arts"⁸⁵⁴ – a view fully supported in this thesis.

Ghosh proceeds to enter the TK debate and proposes three basic positions: the public domain position, the appropriation position, and the moral position. Under the public domain position, he argues that its proponents advocate that TK should be shared in the public domain by all constituencies in a 'global commons', as he refers to open access to knowledge. The appropriation position, by contrast, supports exclusivity to enable commercial exploitation of TK. Lastly, the proponents of the moral position protect the moral interests of TK rightsholders in that they should be able to block any commercial exploitation. The author makes a special effort to draw similarities between the *droit moral* of authors in the copyright regime and the moral rights of TK rightsholders.⁸⁵⁵ In an attempt to align these positions, he poses two questions: first, should TK be a commodity, and second, who has the power to decide on so important a matter? As the moral position is arguably the most ambiguous, he comments that

the moral rights and public domain positions overlap in preserving traditional social structures although the moral rights position is not inconsistent with decisions by members of the traditional structure to market traditional knowledge.⁸⁵⁶

Ghosh then steers away from this dichotomy posed by the three positions, and rather proposes a federal participatory structure to resolve the underlying questions of markets, ownership, and control. He is one of very few authors who can draw on

⁸⁵² Ghosh 2003 *Cardozo Journal of International and Comparative Law* 498.

⁸⁵³ Ghosh 2003 *Cardozo Journal of International and Comparative Law* 498.

⁸⁵⁴ Ghosh 2003 *Cardozo Journal of International and Comparative Law* 499.

⁸⁵⁵ Ghosh 2003 *Cardozo Journal of International and Comparative Law* 500.

⁸⁵⁶ Ghosh 2003 *Cardozo Journal of International and Comparative Law* 500.

the structures of the WTO and the *TRIPS Agreement* better to appreciate the TK versus public domain debate. With this he means that the *TRIPS Agreement* provides a dispensation within which national laws can evolve to meet the political, social, economic, and other policy goals of member states, while allowing space for an expansive public domain and non-commercial uses of TK.⁸⁵⁷ This stance must be seen in the light of his further insights on the power of IP, as opposed to natural resources. In this regard he says that

intellectual property rights provide greater scope for the generation of wealth and for experimentation by the state than natural resources. An international system that rests on natural resources for the generation of commerce and wealth is one that is shaped by the luck of geology and biology. Some states will have natural resources and others will not. Those that do not will either be beholden to those that do or must obtain resources via conquest or consent.⁸⁵⁸

He concedes that IP does not remove the inequalities between nations. However, at least, with international law instruments such as the *TRIPS Agreement*, IP can be a strategic tool that engages TK more effectively in the international marketplace and results in the creation of innovations and their dissemination in the public domain. Moreover, where the moral rights of TK rightsholders to be used in the same manner as those of authors in the copyright regime (with reference to the quote at the beginning of this paragraph), the public domain would be a very poor place.

Ghosh's attempt to understand the moral position of TK must be seen in the context of the relatively late development of the *droit moral* regime in India. The British copyright laws introduced in India in 1847, did not recognise *droit moral* and only as late as 1957, after independence, did India introduce *droit moral* in compliance with article 6^{bis} of the *Berne Convention*. The latest change to the *droit moral* regime was in 2012 with the amendments to the Indian *Copyright Act*⁸⁵⁹ where the concept of the perpetual term of *droit moral*, like the dualistic French copyright law, was introduced. The *droit moral* for performers was also included in the 2012

⁸⁵⁷ Ghosh 2003 *Cardozo Journal of International and Comparative Law* 502.

⁸⁵⁸ Ghosh 2003 *Cardozo Journal of International and Comparative Law* 503.

⁸⁵⁹ Section 38 of the *Copyright Act (India)* 14 of 1957.

amendments in compliance with the *WPPT*.⁸⁶⁰ These changes to the Indian *Copyright Act* are significant because of the provision for protection for the performances by an individual or group of singers of folklore, who are recognised as performers.⁸⁶¹ Raghavender points out that the current *droit moral* regime in India, which is in complete harmony with international copyright conventions, is conducive to the recognition and protection of TK and TCE because these rights are equivalent to fundamental rights which are considered absolute, perpetual, non-waivable, inalienable, non-assignable, non-transferrable and imprescriptible.⁸⁶²

4.3.3.1 Yoga and the public domain

In an insightful article about yoga and the public domain, Sidhu attempts to find the rightful place of ancient traditional medicinal knowledge (TMK) in the modern world.⁸⁶³ Yoga outside of India has become a multibillion-dollar industry and global phenomenon. As a result, the commercialisation and globalisation of yoga as an acknowledged TMK led to new tensions in IPR worldwide.⁸⁶⁴ Therefore, it comes as no surprise that patent, copyright, and trademark applications were lodged worldwide. India responded by creating an online TKDL that effectively put most of the known yoga *asanas* in the public domain, thereby intentionally destroying the novelty requirement for granting a patent in any country worldwide. Nevertheless, this did not happen before two court cases emerged in the USA.

In the *Bikram's Yoga* case the appropriation of yoga emerged when Bikram Choudhury, the developer of a particular sequence of yoga poses and breathing exercises, attempted to enforce copyright against alleged infringing studios.⁸⁶⁵ After commenting that many health, fitness, spiritual, and aesthetic benefits of practices

⁸⁶⁰ Raghavender 2019 *Journal of Intellectual Property Law & Practice* 2.

⁸⁶¹ Section 38A of the *Copyright Act (India)*.

⁸⁶² Raghavender 2019 *Journal of Intellectual Property Law & Practice* 7.

⁸⁶³ See the case study in para 4.3.2.5 on yoga and the public domain.

⁸⁶⁴ Sidhu 2017 *Environmental Policy & Law* 99.

⁸⁶⁵ *Bikram's Yoga College of India v Evolution Yoga (USA)* 1033 (*Bikram's Yoga* case).

like yoga do not bring sequence (section 102(b) – exclusions from copyright protection)⁸⁶⁶ into the realm of copyright protection, the court held that:

(1) sequence [of yoga poses and breathing exercises] was idea (sic) not eligible for copyright protection under idea/expression dichotomy; (2) sequence was not copyrightable as compilation; and (3) sequence was not copyrightable as choreographic work.⁸⁶⁷

It is important to appreciate that the copyright in Bikram's book in which the yoga sequences were published in 1979 and the videos was not disputed, as in terms of copyright legislation a published edition or video can secure separate copyright protection. This USA case holds far-reaching implications for many IPLCs worldwide who believe that their sacred rituals can be protected by copyright.

In the *Open Source Yoga Unity* case⁸⁶⁸ also against Choudhury above, a group of lawyers, yoga teachers, and students (the applicants) argued that no copyright resides in public performances of the Bikram yoga sequence by practitioners. Therefore, there is indeed a need to protect the public ownership of yoga to ensure its unfettered practice for all to enjoy and develop, and "that yoga, in all its manifestations, exists naturally in the public domain".⁸⁶⁹ In the absence of adequate evidence (that the applicants' verbal descriptions of the yoga *asanas* do not infringe Choudhury's copyright), the judge did not rule on this matter. The applicants also challenged the generic nature of the Bikram yoga trademark held by Choudhury, but the court also did not rule on this because neither party provided evidence showing non-generic use of the mark.⁸⁷⁰ Unfortunately, the matter was later settled out of court, leaving many legal questions unanswered.

In conclusion, Sidhu's view is supported in that both these cases illustrate the global danger of private appropriation of TK, arguably driven by greed and the subsequent emergence of socio-ethic-legal questions in the sphere of IP and whether TK resides in the public or private domain. She is also correct that India's

⁸⁶⁶ Section 102(b) of the *US Code* - ie *USA Copyright Act*.

⁸⁶⁷ *Bikram's Yoga College of India v Evolution Yoga (USA)* 1032, 1044.

⁸⁶⁸ *Open Source Yoga Unity v Choudhury (USA)* para 1 (*Open Source Yoga Unity* case).

⁸⁶⁹ Sidhu 2017 *Environmental Policy & Law* 101.

⁸⁷⁰ *Open Source Yoga Unity v Choudhury (USA)* para 10.

ability to utilise the technology that put the yoga *asanas* in the public domain (i.e. the process of writing, codifying, translating, and digitising them by means of the TKDL, as a defensive anti-appropriation strategy) could transform the very nature of the management and protection of TK, TCE and TMK in India – i.e. by opening the public domain, as opposed to protecting it.⁸⁷¹

4.3.3.2 Cultural appropriation and the public domain

India's public domain is not spared from cultural appropriation claims. The most prominent case in recent years involves the American pop singer, Selena Gomez. Gomez took to the stage at the MTV Music Awards wearing a traditional Indian dress and a *bindi*. Purists attacked Gomez fiercely for this unacknowledged and inappropriate adoption of the customs and practices of the Indian people, accusing her of cultural appropriation. It was said that "[*bindis* are] best left to Indian women".⁸⁷² Baker analysed this matter, together with other cases such as the Mexican *huipils*. Her summary of the opponents of cultural appropriation deserves attention and includes comments such as "[m]aybe cultural appropriation is just a side effect of sharing" and "cultural emulation is merely admiration" and "because cultures coexist in such proximity, the exchange of cultural practices is to be expected", all opponents essentially pleading for a more accessible public domain in which creativity can be fostered.⁸⁷³ Although she concedes that the current IP instruments are not always appropriate for the protection of designs by fashion houses, there is an "obvious need for reform in terms of protecting the cultural property of...indigenous communities, worldwide".⁸⁷⁴

4.3.4 Constitutional rights in India

The IKS debate in India, as in South Africa, must be pursued within the reality of the country's extreme poverty challenges. In the *Bombay* case the right to life was regarded as a fundamental right, so much so that communities whose means of

⁸⁷¹ Sidhu 2017 *Environmental Policy & Law* 104.

⁸⁷² Baker 2018 *North Carolina Central University Science & Intellectual Property Law Rev* 111.

⁸⁷³ Baker 2018 *North Carolina Central University Science & Intellectual Property Law Rev* 112.

⁸⁷⁴ Baker 2018 *North Carolina Central University Science & Intellectual Property Law Rev* 130.

livelihood are threatened could find protection under the right to life – the judge stated, "if the right to livelihood is not treated as a part of the Constitutional right to live, the easiest way of depriving a person of his right to life would be to deprive him of his means of livelihood to the point of abrogation".⁸⁷⁵

Briefly, this case related to pavement dwellers in Bombay's slums who constitute nearly half the city's population and who earn their livelihood from the streets, who sought a judgment prohibiting them from being evicted from their squalid shelters without being offered alternative accommodation.⁸⁷⁶ Nwauche supports this judgment from a TK and TCE point of view where many IPLC's livelihood depends on making and selling handicrafts next to main roads where tourists pass by.⁸⁷⁷ He continues that when Constitutional rights are balanced against the public interest, that TK and TCE with religious connotations, such as yoga, should be in the public domain – as is indeed the case in India.⁸⁷⁸

4.3.5 Property rights in India

The Indian *Constitution* is relatively silent on property rights. Only as late as 1978 was a clause⁸⁷⁹ to explicitly entrench property rights added to the *Constitution*, with property not being defined. It is noteworthy that, unlike Mexico, which limits the rights of the Catholic Church to own property,⁸⁸⁰ the Indian *Constitution* entrenches

⁸⁷⁵ *Olga Tellis & Ors v Bombay Municipal Corporation & Ors (India)* 1985 SCR Supl (2) 51 para 55 (*Bombay case*).

⁸⁷⁶ *Olga Tellis & Ors v Bombay Municipal Corporation & Ors (India)* 9; The judge said "those who have made pavements their homes exist in the midst of filth and squalor, which has to be seen to be believed. Rabid dogs in search of stinking meat and cats in search of hungry rats keep them company. They cook and sleep where they ease, for no conveniences are available to them. Their daughters, come of age, bathe under the nosy gaze of passers by, unmindful of the feminine sense of bashfulness. The cooking and washing over, women pick lice from each other's hair. The boys beg. Menfolk, without occupation, snatch chains with the connivance of the defenders of law and order; when caught, if at all, they say: 'Who doesn't commit crimes in this city?'"

⁸⁷⁷ Nwauche *The Protection of Traditional Cultural Expressions in Africa* 161.

⁸⁷⁸ See case study in para 4.3.2.5.

⁸⁷⁹ Article 300A of the *Constitution (India)*. "No person shall be deprived of his property save by authority of law".

⁸⁸⁰ See para 4.4.3 where Mexican property rights are discussed.

this right.⁸⁸¹ Concerning IP and IKS the Indian *Constitution* is silent, and one needs to draw on specific pieces of legislation for a more comprehensive view of property rights. India's *Copyright Act*⁸⁸² is notably silent on any form of protection for TK and TCE but there are Indian protagonists of TK and TCE who argue that TK and TCE need protection in perpetuity – a view not supported in this thesis.⁸⁸³

4.3.6 The patent regime in India

India's entertainment, pharmaceutical, software, and agriculture industries are increasingly seeking IP protection for their creative works and inventions. As a WTO member, India appreciates the importance of IP regimes and compliance with international law instruments such as the *TRIPS Agreement*,⁸⁸⁴ the *WCT*,⁸⁸⁵ and the *WPPT*.⁸⁸⁶ Within this context and also from the case studies above, it is clear that India is not afraid to challenge Western paradigms on patents and the associated novelty requirements to further its national interest. For example, patents' novelty claims regarding IKS are, inter alia, verified by the TKDL⁸⁸⁷ with the assistance of the Indian NIF.⁸⁸⁸ Furthermore and in compliance with the *CBD*, the Indian *Patents Act* requires patentees to "disclose the source and geographical origin of the biological material in the specification, when used in an invention".⁸⁸⁹

India understands the importance of the need for individual rightsholders or inventors, but not necessarily their communities, to share in incentives and benefits that may accrue due to the dissemination of knowledge in the public domain.

⁸⁸¹ Article 26(c) of the *Constitution (India)*. "26. Subject to public order, morality and health, every religious denomination or any section thereof shall have the right - (c) to own and acquire movable and immovable property". Also see para 4.4.3 on the influence that the Catholic Church had on Mexico's constitutional development.

⁸⁸² *Copyright Act (India)*.

⁸⁸³ Burra and Babu (eds) *Locating India in the Contemporary International Legal Order* 165.

⁸⁸⁴ Helfer and Austin *Human Rights and IP* 409.

⁸⁸⁵ WIPO, *WCT: Member States* (WIPO 1996).

⁸⁸⁶ WIPO, *WPPT: Member States* (WIPO 1996).

⁸⁸⁷ CSIR India, *Traditional Knowledge Digital Library* (CSIR India, 2001)

⁸⁸⁸ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 260.

⁸⁸⁹ Section 10.4(d)(ii)(D) of the Indian *Patents Act (India)* 39 of 1970.

However, prior informed consent by these communities is of utmost importance before any commercial activities by individual rightsholders may proceed.⁸⁹⁰

India also understands that there is a direct correlation between the responsible way in which IKS enter the public domain, and how the associated IP is protected. In this regard the NIF assists with IKS product development plans, the associated IP protection and licencing strategies and all such matters that make the commercialisation of IKS attractive to investors.⁸⁹¹

India's understanding of the public domain, IP, and IKS did not happen overnight. It required formal complaints by the USA that India had not introduced amendments to its *Patents Act* as required by article 70(8) and (9) of the *TRIPS Agreement*,⁸⁹² before India's parliament made various amendments to its *Patents Act* of 1970⁸⁹³ over a period of years to comply with the *TRIPS Agreement* eventually.⁸⁹⁴ Rangnekar fiercely criticises commentators of that time of "falling short of mentioning the bully"⁸⁹⁵ behind the USA case. Pharmaceutical Research and Manufacturers of America (PhRMA), suggested that over 25 per cent of the Indian market was pirated when it defended India's desire to use IP law to foster indigenous technological and scientific competence, and the capacity for drug development in particular.⁸⁹⁶ Incidents and court cases related to the pharma-industry, medicinal plants, PGR, and yoga resulted in the subsequent establishment of the TKDL which currently serves as public domain filter for various jurisdictions that validate patent applications against the novelty requirement before being granted. This innovative and pioneering Indian database validates prior-art claims with the help of an integrated global biopiracy watch system which allows monitoring of patent applications.⁸⁹⁷ Finally, harmonising prior art and disclosing standards are not that

⁸⁹⁰ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 260.

⁸⁹¹ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 260. Also see the homepage of the NIF where more information about some of India's extraordinary initiatives is available. www.nif.org.in.

⁸⁹² Para 2.4 of the *TRIPS Agreement* (1994).

⁸⁹³ *Patents Act (India)*, India.

⁸⁹⁴ Rangnekar 2006 *Economic and Political Weekly* 1.

⁸⁹⁵ Rangnekar 2006 *Economic and Political Weekly* 2.

⁸⁹⁶ Rangnekar 2006 *Economic and Political Weekly* 5.

⁸⁹⁷ Gupta 2019 *Journal of Intellectual Property Rights Law* 38.

simple as countries require flexibility within their own jurisdictions. The disclosure of the source of GR, as an instrument in preventing biopiracy and misappropriation is, for example, enacted in India (and South Africa), but not regarded as necessary by developed countries.⁸⁹⁸

4.3.6.1 "Working of a patent"

Under the Indian *Patent Act*, patents are granted to promote the domestic "working of a patent" (s 83(a)) and not to stimulate import monopolies (s 83(b)),⁸⁹⁹ "which is largely premised on the non-satisfaction of the 'reasonable requirement of the public', which includes, inter alia, domestic demand not being met by manufacture in India (90(a)(ii))".⁹⁰⁰ This is one of the main reasons why India, as opposed to other developing countries, has developed the competence and skills required to manufacture drugs locally. Rangnekar asserts that India's competence is not to be denigrated, referring to "Ranbaxy's⁹⁰¹ three-year and US\$20 million effort to get around the 56 patented processes to produce Eli Lilly's drug cefaclor", for support.⁹⁰² By 1991, 70 per cent of all bulk drugs were being manufactured in India. The USA argued strongly that the presumption that local working of a patent can only be satisfied by the local production and not by importation, was one of their many submissions on the *TRIPS Agreement*. Rangnekar suggests that money talks in the end, with the Indian pharma-industry adopting a mix of cooperative and competitive strategies where it developed innovations in the manufacturing process to produce generic drugs. However, like all other developing countries, the domestic market cannot afford these drugs, and the firms then moved to the export market and sought patent protection. For example, traditional medicine practitioners have protected their innovations by using patent rights under patent systems. Another example is China which granted 4 479 patents for traditional Chinese medicines in 2002, even though their novelty had not been determined in international patent

⁸⁹⁸ Dhar and Anuradha 2005 *Economic and Political Weekly* 1354.

⁸⁹⁹ Section 83 of the *Patents Act (India)*, India.

⁹⁰⁰ Rangnekar 2006 *Economic and Political Weekly* 5.

⁹⁰¹ Ranbaxy was incorporated in 1961 in India, but this pharmaceutical company is currently controlled by Japanese shareholders.

⁹⁰² Rangnekar 2006 *Economic and Political Weekly* 11.

treaties.⁹⁰³ Furthermore, it is here where the USA is correct in that section 90(a)(ii) of the Indian *Patents Act* which provides for "reasonable requirement of the public",⁹⁰⁴ is violated.

4.3.7 Plant genetic resources

Regarding international law instruments, India complies with article 27(3)(b) of the *TRIPS Agreement*, which provides protection measures for plant varieties.⁹⁰⁵ However, the *UPOV Convention's* strong focus on IP protection for plant varieties does not allow farmers to collect, conserve, and exchange landrace seeds or those of protected varieties, and as a result, countries with strong farmers' rights, such as India, cannot comply with all aspects of *UPOV*. Furthermore, Indian NGOs, traditional farmers, and IPLCs fiercely resisted the extension of the plant varieties regime, which they saw as "promoting Western interests and biopiracy,"⁹⁰⁶ which applied considerable pressure on the Indian government not to accede to the *UPOV Convention*. India is not immune to global realities, and its *Protection of Plant Varieties and Farmers' Rights Act (PPVFR Act)*⁹⁰⁷ emerged as part of a process in the context of international power relations, while the social relevance of non-industrialised farming styles was preserved. In this regard, India's age-old culture of seed collection, conservation, and the exchange of landrace seeds (PGR) is well documented.⁹⁰⁸ The national response to Monsanto's commercial approach which threatened this socio-cultural norm has already been discussed.⁹⁰⁹

The *PPVFR Act* differs fundamentally from the *UPOV Convention*, which underpins India's national concern for protecting the rights of traditional farming communities. In this regard, Helfer et al point out important differences, such as that the *PPVFR Act* categorises plant varieties in three protectable categories: new, extant, and

⁹⁰³ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 20.

⁹⁰⁴ Section 90(a)(ii) of the *Patents Act (India)*, India.

⁹⁰⁵ See para 3.7.3; A 27(3)(b) of the *TRIPS Agreement (1994)*. "...Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof".

⁹⁰⁶ Patnaik, Jongerden and Ruivenkamp 2018 *J World Intellectual Prop* 162.

⁹⁰⁷ Section 39 of *Protection of Plant Varieties and Farmers' Rights Act (India)* 53 of 2001.

⁹⁰⁸ Patnaik, Jongerden and Ruivenkamp 2018 *J World Intellectual Prop* 158.

⁹⁰⁹ See para 4.3.3.

farmers' varieties. While new varieties comply with *UPOV* requirements, India aims to protect its indigenous farmers and PGR with extant varieties, which relate to existing varieties discovered for the first time, and farmers' varieties "which [have] been traditionally cultivated and evolved by the farmers in their fields or is a wild relative or landrace of a variety about which the farmers possess the common knowledge".⁹¹⁰

India made significant progress towards compliance with the *CBD* with the acceptance of its *Biological Diversity Act*,⁹¹¹ which aims to protect TK of IPLC and provide for the fair and equitable sharing of benefits arising out of the utilisation of GR. However, it appears that India and South Africa face similar challenges – for example, the identification of beneficiaries⁹¹² and ownership of individual rightsholders vis-à-vis communities. Interestingly, an organisation, the Honey Bee Network, was established in the Gujarat state of India to seek the consent of the individual rightsholder or inventor of innovations and to foster the dissemination of their knowledge about GR into the public domain, while ensuring that incentives are provided for the individual rightsholder or innovator who was identified.⁹¹³ The GR database containing in excess of 10 000 innovations that the Honey Bee Network has compiled over the years is of particular importance to this thesis. The Indian government expanded the model and now provides institutional support to grow the model.⁹¹⁴

In 2019, after an earlier failed attempt in 2004, the *Draft Seeds Bill*⁹¹⁵ was resurrected and is now in the consultation phase in India. The Bill provides for the compulsory registration of all plant varieties and hybrids, based on the results of multi-location trials for a prescribed period to establish their performance vis-à-vis

⁹¹⁰ Helfer and Austin *Human Rights and IP* 412.

⁹¹¹ *Biological Diversity Act (India)* 18 of 2003, India.

⁹¹² Section 21.2(a) of the *Biological Diversity Act*. "S 21.2(a) grant of joint ownership of intellectual property rights to the National Biodiversity Authority, or where benefit claimers are identified, to such benefit claimers".

⁹¹³ See para 4.3.2.4 where the *Honey Bee Network* is discussed as a case study. Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 139.

⁹¹⁴ Biber-Klemm and Cottier (eds) *Rights to PGR and TK* 139.

⁹¹⁵ *Seeds Bill (India)* 2019, India.

the claims of the plant breeders concerned. It is expected to bring greater accountability to the industry. ...

In a recent study by Patnaik et al, the authors (all anthropologists) argued that the current IP and PGR discourse focuses too strongly on ownership, and they proposed a model that promotes access to PGR. With this open access model, the authors also appreciate the importance of an accessible biosocial public domain, or in the context of this thesis, a public domain for PGR. During the study, four seed banks were analysed to understand better the social mechanisms that farmers use to gain access to the biosocial public domain where landrace varieties can be accessed within the realities of an existing IP regime and international realities.⁹¹⁶ These farmers and seed banks collectively proved the "abilities of stakeholders to access [plant genetic] resources, leading to new mechanisms based on sharing through the legal procedures".⁹¹⁷ Even more remarkable was the relevance of farmers' need to belong to a group with a specific ideology, their ability to negotiate, and their desire to create social relations with community heads and other members as facilitators to access the PGR in the biosocial public domain. The authors describe this biosocial public domain as the "biosocial relations between human (the social) and non-human (ecological, biological, and cultural) dimensions, ultimately leading to the functioning of resources as biosocial commons".⁹¹⁸

India's pragmatic approach in respect of access to, and sharing of, PGR as opposed to proprietary rights thereto, helped farmers to rebuild their TK, re-establish their cultural practices, and reaffirm their status as producers of resources, correlates with the Australian approach regarding indigenous peoples' "cultural knowledge

⁹¹⁶ These seedbanks are: 1. Deccan Development Society (DDS), which involves the collective practice of managing millet seeds through community seed banks. The DDS initiated seedbanks aimed at re-establishing local food self-sufficiency and securing community access to and control over food production based on millets especially by Dalit (lower caste) women. 2. Loka Samabaya Pratisthana (LSP) is a small organisation with limited infrastructure but catering to the needs of hundreds of farmers in the nearby villages and from all over India each year. 3. Sambhav as an organisation is small but spread across a relatively wide area, ninety acres of land in the village of Rohibanka. 4. The Central Rice Research Institute (CRRI), is a public research institute that manages PGRs as public goods.

⁹¹⁷ Patnaik, Jongerden and Ruivenkamp 2018 *J World Intellectual Prop* 171.

⁹¹⁸ Patnaik, Jongerden and Ruivenkamp 2018 *J World Intellectual Prop* 171.

[that] does not constitute a native title right...", but a vested interest in how GR are exploited. The next paragraph will elaborate on this.

4.3.7.1 Biopiracy in agriculture and forestry

Shiva, an Indian physicist and world-renowned environmental thinker, is arguably one of the most renowned advocates against the biopiracy of India's natural resources and the related exploitation of the indigenous peoples of India. Although her view that biopiracy originates in Western views that the "jurisprudence of intellectual property rights related to life forms is in fact a jurisprudence of *bio nullius*",⁹¹⁹ as was the case with *terra nullius* during the takeover of territories by European countries, is not widely shared by legal scholars; her insights on the Indian agricultural sector cannot be ignored. With this underlying philosophy, she promotes the "enclosure of the intellectual commons [when she says that] innovation in the public domain is necessary for the innovation that is privatized by IPRs".⁹²⁰ As a physicist, she is correct to break down genetic evolution into three distinct occurrences:

The creativity inherent to living organisms that allows them to evolve, recreate, and regenerate themselves.

The creativity of indigenous communities who have developed knowledge systems to conserve and utilise the rich biological diversity of our planet.

The creativity of modern scientists in university or corporate labs who find ways to use living organisms to generate profits.⁹²¹

A careful look at these three independent activities reveals that time is the common denominator. Natural evolution can take centuries, as Darwin told us in 1859. It is also not new that scientists can fast-track evolution by means of genetic engineering, dating from a more recent 1973 when Boyer and Cohen produced the first GMO. However, suggesting that only IPLCs or local farmers are to be credited with creating knowledge regarding biological diversity when she explains how natural seed selection in India occurred over the centuries (the second point above),

⁹¹⁹ Shiva *Biopiracy. The Plunder of Nature and Knowledge* 16.

⁹²⁰ Shiva *Biopiracy. The Plunder of Nature and Knowledge* 30.

⁹²¹ Shiva *Biopiracy. The Plunder of Nature and Knowledge* 23, 51.

is questionable. The more correct argument could possibly be that IPLCs and local farmers are credited with fast-tracking science, but this can only happen if Shiva's demarcation of the intellectual public domain includes TK. Be that as it may, Indian legislation now provides for strong measures to protect farmers – see below, Shiva who cynically says that in the USA, "USA citizens [are] denied their right and duty to save and exchange seed".⁹²²

A farmer shall be deemed to be entitled to save, use, sow resow, exchange, share or sell his farm produce including seed of a variety protected under this Act in the same manner as he was entitled before the coming into force of this Act.⁹²³

TK and GR have always been a local common resource that should be regarded as property for so long as social systems exist to use it on the principles of justice and sustainability. Here Chander and Sunder are correct when they say that the "likely beneficiaries of the public domain resources of the traditional knowledge about [TK] are multinational companies that are capable of converting these public domain resources into valuable patentable products".⁹²⁴

Biopiracy also occurs in the Indian forests where illiteracy contributes to fears among indigenous forest dwellers that "if their knowledge is documented, it will be more susceptible to misappropriation".⁹²⁵ In 2006, India responded with landmark legislation, the *Forest Rights Act*,⁹²⁶ recognising forest dwellers' rights over forest resources. In the process, biodiversity and the sustainable conservation of these forests are maintained. The Act provides a framework for the documentation of IKS and the nature of evidence required for its recognition and the recognition of these communities.

4.3.7.2 Traditional medicinal knowledge

With reference to the Indian case studies, there is an urgency to emphasise India's dire need to find a balance between TMK, its generic drug industry, and the

⁹²² Shiva *Biopiracy. The Plunder of Nature and Knowledge* 9.

⁹²³ Article 39(iv) of the *Protection of Plant Varieties and Farmers' Rights Act (India)*.

⁹²⁴ Chander and Sunder 2004 *California Law Review* 1353.

⁹²⁵ Burra and Babu (eds) *Locating India in the Contemporary International Legal Order* 172.

⁹²⁶ *Forest Rights Act (India)* 2 of 2007.

commercial pharmaceutical industry within the parameters of the UNs' three-pillar framework of ecological sustainability, economic viability, and social justice.⁹²⁷ Priya, a medical doctor as well as a social medicine and community health scholar, who grapples with this dilemma from a global health and ethical perspective, has views that are important to contextualise Ghosh's legal arguments on the matter.⁹²⁸ Priya argues that TMK is undeniably recognised by the WHO and other organisations as a primary healthcare resource in many developing countries, including India. Furthermore, its availability and affordability are critical to India's way of life.⁹²⁹ Any legal practitioner should be sensitised to her concerns before any new legal instrument is unexpectedly conceived. One of her valid points is the unintended consequence of putting sacred TMK into the public domain. She uses arogyapacha (*Trichopus zeylanicus*), a medicinal plant with energising properties, as an example – an example with striking similarities to the unfortunate misappropriation of the South African hoodia plant. The medicinal knowledge of arogyapacha was secret and sacred to the Kanikar community in India before its active compound (jeevani) was patented, and the Kanikar community was tricked into disclosing its sacred powers. Today, arogyapacha and hoodia are both endangered species in India and South Africa respectively (needless to say there are today export embargos on both these plants) and neither of the IPLCs from whom the TMK was transferred to the public domain can show any benefits for the public domain from such sacred TMK.⁹³⁰ It is against these unintended consequences that Priya warns, and then advocates for a better IP regime that can protect TMK from exploitation. She advocates that TMK be respected in the public domain under certain principles.⁹³¹

⁹²⁷ Priya and Kurian 2018 *Science, Technology and Society* 505; The UN's sustainable development goals (SDG) are formulated around these three pillars.

⁹²⁸ See para 4.3.3.

⁹²⁹ Priya and Kurian 2018 *Science, Technology and Society* 506; She substantiates this argument with empirical data of developing countries that suggest that the governments of these countries will not be able to provide basic healthcare to their people without TMK.

⁹³⁰ Priya and Kurian 2018 *Science, Technology and Society* 516.

⁹³¹ The five principles that Priya proposes are: "1. a collective conception of knowledge generation and 'custodianship' (as against ownership that allows the right to dispose of or transfer), 2. universally applicable holistic conceptions of ecological-social-biological processes, 3. localisation of health measures linked to time and place, 4. individualisation of health measures based on spatio-temporal and individual characteristics and 5. an ethics of plant/natural resource use".

Nomani is an IP scholar who appreciates the importance of protecting TMK-related trade secrets with the potential to translate such IP into economic growth, without being afraid of disclosing the trade secrets in the public domain.⁹³² He argues that the solution lies in policy development that "encourage[s] research and development by providing protection to the originator of business information, and maintain[s] proper standards of business ethics".⁹³³ He also understands the role of trade secrets in such cases where the secrets do not necessarily meet the novelty and non-obviousness standards for patent registration. However, in the case of TMK there are public good and ethical reasons why the properties and composition of traditional medicine cannot be kept secret. These reasons relate to the need to provide data to the public on the safety, efficacy, and quality of the drugs – no government will risk the safety of the common public and it is therefore easy to comprehend that regulatory authorities will grant no traditional healer preferential treatment based on claims to the sacred and secret nature of the medicament.⁹³⁴ Nomani's views are echoed by Burra, who points out that article 39 of the *TRIPS Agreement* requires the protection of trade secrets.⁹³⁵

4.3.8 Geographical indications

As a WTO member, India is obliged to comply with the provisions of the *TRIPS Agreement*, which deals with GI.⁹³⁶ Accordingly, in 1999 India put the necessary GI measure in place with the enactment of the *Geographical Indications of Goods (Registration and Protection) Act* (hereafter *GIG Act*),⁹³⁷ which has resulted in more than 230 GI marks involving agricultural products, handcrafts, and manufactured goods.⁹³⁸ In the Kashmir shawls case study above, it was pointed out how India has

⁹³² Nomani and Rahman 2011 *Journal of Intellectual Property Rights* 341.

⁹³³ Nomani and Rahman 2011 *Journal of Intellectual Property Rights* 341.

⁹³⁴ Nomani and Rahman 2011 *Journal of Intellectual Property Rights* 345.

⁹³⁵ Burra and Babu (eds) *Locating India in the Contemporary International Legal Order* 167.

⁹³⁶ See para 3.7.4; A 22(1) of the *TRIPS Agreement* (1994).

⁹³⁷ Section 2(e) of the *Geographical Indications of Goods (Registration and Protection) Act (India)* 48 of 1999. "GI is an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of such goods is essentially attributable to its geographical origin".

⁹³⁸ Pai and Singla "Vanity GIs: India's Legislation on Geographical Indications and the Missing Regulatory Framework" 344.

a deep and historical understanding of the importance of GI and the related protection of IKS, but still, the weavers regrettably remain poor with no benefit sharing measures in place.⁹³⁹

Sunder is a keen proponent of GI as a utilitarian tool to address poverty and inequalities in India. She realises that there is no Eureka moment when the line separating the public domain and IP is crossed, and that indigenous artists and artisans in India already realise that developing marketable uses for their cultural products is arguably the most effective way to protect IKS. These indigenous artists and artisans recognise that "except in a museum setting, no traditional craft skill can be sustained unless it has a viable market".⁹⁴⁰

Singhal is sceptical of the use of GI to protect TK and TCE in India, as in India TK and TCE are in many cases associated with a service (human skill),⁹⁴¹ rather than with geographical factors which are relevant for wine, for example, and where the use of AOO as opposed to GI would be more appropriate. She bases her arguments on the following five points. GI will be unfairly imposed on persons with certain skill sets when they relocate to another region, where they may then not practice their skills to earn a living – she says, inter alia, "a community is not necessarily a physical location, but a shared resource of custom and tradition, in which the expression of self remains possible".⁹⁴² Second, GI does not protect knowledge;⁹⁴³ it merely guards against misrepresentation and unfair capitalisation on the product's reputation. Third, the *TRIPS Agreement* provides only a low minimum standard of protection. Here she correctly points out how GI can be abused. For example, "if a product is marketed as 'American styled Kasuti embroidery'", article 22 of the *TRIPS Agreement* is not violated.⁹⁴⁴ Fourth, in India GI protection may be obtained by any type of legal entity, for example, an individual, a family, a partnership, a corporation, a voluntary association, or a municipal corporation – here her valid concern relates

⁹³⁹ Kulke and Rothermund *A History of India* 209.

⁹⁴⁰ Sunder 2007 *Law & Contemp Probs* 111.

⁹⁴¹ Singhal 2008 *Journal of Intellectual Property Law & Practice* 738.

⁹⁴² Singhal 2008 *Journal of Intellectual Property Law & Practice* 736.

⁹⁴³ Singhal 2008 *Journal of Intellectual Property Law & Practice* 736.

⁹⁴⁴ Singhal 2008 *Journal of Intellectual Property Law & Practice* 736.

to the absence of conflict resolution mechanisms that may lead to GI hanging in limbo.⁹⁴⁵ Lastly, GI protection may be granted to a single entity, resulting in a monopoly which excludes persons with skills from producing the same product.⁹⁴⁶

Singhal fails to draw the reader's attention to the subtle differences between GI and AOO.⁹⁴⁷ As already explained with the *Lisbon Agreement*⁹⁴⁸ and with the *TRIPS Agreement*,⁹⁴⁹ AOO makes provision for human factors, whereas GI do not.⁹⁵⁰ Many of Singhal's arguments would have been adequately addressed had she rather opted to consider the use of AOO as a possible solution to her problems regarding GI – she most likely did not consider AOO because India is not a signatory to the *Lisbon Agreement*.

Recognising its role in the East, India is currently negotiating a *Regional Comprehensive Economic Partnership Agreement (RCEP Agreement)* with other East and Far-East countries. One aspect of this proposed *RCEP Agreement* relates to the protection of GI. India's position, together with Japan, is that "member states shall ensure adequate and effective protection for GI in accordance with the *TRIPS Agreement*".⁹⁵¹ Sharma comments that India's approach to GI and other IP-related matters during the RCEP negotiations indicates the country's pragmatic approach to IKS in the interest of its domestic industry in a global setting.⁹⁵²

Recognising the importance of the West, India acknowledges the role of trademarks in international trade, including marks related to GI for which the market is prepared to pay a premium.⁹⁵³ As a signatory to the *TRIPS Agreement*, India must comply

⁹⁴⁵ Singhal 2008 *Journal of Intellectual Property Law & Practice* 737.

⁹⁴⁶ Singhal 2008 *Journal of Intellectual Property Law & Practice* 737.

⁹⁴⁷ India is not a member of the Lisbon System (*Lisbon Agreement (1958)* & *Geneva Act (2015)*) in which instruments AOO is regulated.

⁹⁴⁸ See para 3.3.2.1.

⁹⁴⁹ See para 3.7.4.

⁹⁵⁰ See Figure 3.1 for a graphical illustration on the differences between AOO and GI.

⁹⁵¹ Sharma 2019 *J World Intellectual Prop* 10.

⁹⁵² Sharma 2019 *J World Intellectual Prop* 12; Some commentators predict that the RCEP has the potential to pave the way for the creation of the largest free-trade block in the world, covering 45% of the world's population.

⁹⁵³ Pai and Singla "Vanity GIs: India's Legislation on Geographical Indications and the Missing Regulatory Framework" 337; Studies show that customers are prepared to pay a premium of up to 15% for GI products.

with article 16,⁹⁵⁴ which deals with well-known marks – also provided for in article 6^{bis} of the *Paris Convention*. Ragavan investigated the principle of national treatment that could potentially result in WTO members according foreign marks treatment equal to that accorded national marks, and concluded that it is exactly what is happening in India, while referring to a long list of legal cases heard in the USA, UK, and India on the common law's "first in time equals first in right" doctrine and the *TRIPS*-imposed 'famous brands' doctrine.⁹⁵⁵ Ragavan also points out that opposing rulings by judges on the same matter does not contribute to policy development in carefully weighing the different legal doctrines that govern this area and determining what would be most beneficial to the country.⁹⁵⁶

Pai and Singla question India's inherent ability to unlock the same value from GI as EU countries in that GI is an indication of origin and links a product's distinct reputation with quality and inherent characteristics. With reference to various examples such as Banasari *saris*, they point out that many Indian communities who rely on the manufacture and sale of fabric do not put in place the appropriate quality assurance measures inherent to the value that GI add to products. They anecdotally refer to local *sari* traders as "free riders from within" who use synthetic or imported silk of inferior quality and continue to sell the saris as authentic products⁹⁵⁷ – this despite inspection bodies⁹⁵⁸ being in place. Pai and Singla are correct when they argue that until India's producers and consumers of IKS products are aware of the value that GI can add to their products and the premium that they can charge in foreign markets if the necessary quality assurance measures are in place, GI are not serving India well – except for Darjeeling tea producers who were able to put quality measures in place which satisfy EU markets.

⁹⁵⁴ Article 16 of the *TRIPS Agreement* (1994).

⁹⁵⁵ Ragavan 2019 *Texas A&M University School of Law Legal Studies Research Paper* 43.

⁹⁵⁶ Ragavan refers to the following two case, where the first case ruled in against famous marks, and the second case in favour of famous marks; *Toyota Jidosha Kabushiki Kaisha v M/S Prius Auto Industries Limited (India)* CIVIL APPEAL NOs5375-5377 (2017) (*Toyota case*). *Christian Louboutin Sas v Ashish Bansal & Anr (India)* CS(COMM) 503 (2016) (*Louboutin case*).

⁹⁵⁷ Pai and Singla "Vanity GIs: India's Legislation on Geographical Indications and the Missing Regulatory Framework" 334.

⁹⁵⁸ Section 11(2) of the *GIG Act, India*.

4.3.9 Concluding remarks on India

Traditional and contemporary artists, traditional weavers, artisans, and local farmers are all traders who realise that no traditional skill can be sustained unless their products have a viable and sustainable market. In the digital age, this is also true of creative performers, with reference to the international success stories of the Bollywood film industry that essentially disseminates Indian cultural life in the public domain. India appreciates that the effective protection of IKS, international cooperation, and national initiatives are essential – India's gradual acceptance of trading tools (e.g. *TRIPS Agreement*) and the international IP regime points to the dynamic nature of the country's traditions and its ability rather to embrace patents, GI, and plant variety rights, as opposed to developing a *sui generis* legal dispensation for IKS.⁹⁵⁹ As Sunder suggests, reasons for this approach can be seen in the large numbers of the Indian population living in abject poverty, coupled with the country's resilience in having survived many cycles of famine. They are embracing instruments such as GI, which has proven inappropriate in many cases. Many communities would elect to trade in inferior products rather than rely on the premium that GI products may allow them to ask. There is nothing wrong with this freedom of choice, but when Indian traders look to the EU market, quality assurance measurers assume considerable importance.

4.4 United Mexican States

4.4.1 Introduction

The United Mexican States (hereafter Mexico) was selected as part of this legal analysis for the following main reasons: First, Mexico is a civil law country, which allows this legal analysis to broaden its scope from common law countries only (Australia and India). Second, Mexico is a developing country with similar socio-economic challenges as South Africa. Third, it is the fifth most biodiverse country globally (South Africa is ranked second – both are blessed with forests and deserts), which allows this legal study to compare South Africa with a country with the same

⁹⁵⁹ Burra and Babu (eds) *Locating India in the Contemporary International Legal Order* 156.

abundance of GR. Fourth, with its shared border with the USA (notably, the state of Nuevo León borders Texas and the state of Sonora borders Arizona), the IPLC of Mexico face similar cross-border challenges in respect of IKS as South Africa and its neighbouring countries.

The legal analysis of IKS in Mexico cannot be undertaken without contextualising certain historical developments. In 1821, the Mexican people gained independence from Spain which had ruled the territory since their conquest of the Aztec Empire in 1521. After a further turbulent period, the *Political Constitution of the United Mexican States* (hereafter Mexican *Constitution*) was adopted in 1917.⁹⁶⁰ Today, the Mexican *Constitution* is one of the most fluid Constitutional documents in the world, with over 500 changes having been made since 1917. This, according to Vargas, is because Mexicans chose to "textually amend the provisions of the fundamental law virtually every year so the new text would fit the changing contemporary reality".⁹⁶¹ Vargas also points out that another reason for these many changes is that Mexico does not adhere to the *stare decisis* principle. Courts in Mexico are to decide the cases submitted to them based not on precedent but on what is mandated by article 14 of the *Constitution*.⁹⁶²

The paragraphs that follow briefly touch on some historical developments of Mexico. These include the *Constitution*, the Catholic Church, land tenure, and the country's demographics. The Constitutional developments in Mexico focused mainly on the establishment of human rights and preventing discrimination. These rights are summarised in article 1 of the Mexican *Constitution* and are aligned with the *UDHR* to which Mexico is a signatory. Article 2 acknowledges Mexico's multicultural integration and entrenches the right to self-determination for all citizens, particularly IPLC. Also in terms of article 2, indigenous peoples are those people who speak an

⁹⁶⁰ *Political Constitution of the Mexican United States (Mex)* 1917.

⁹⁶¹ Vargas 1996 *Ga J Int'L & Comp L* 557; By contrast, the USA has only amended its *Constitution* 26 time since 1789.

⁹⁶² Vargas 2008 *San Diego Legal Studies* 23; A 14 of the *Mexican Constitution* reads as follows: "A 14. In civil trials, final sentence must agree the law writing or the legal interpretation thereof. In the case of lack of the appropriate law, sentence must be based on the general principles of law".

indigenous language or people who can freely choose to be classified as indigenous, notably during elections.⁹⁶³ It was only in 1992 after firm demands advanced by IPLC that articles 2 and 4 were amended to recognise the pluri-ethnic composition of Mexico, with further changes being made in 2011.⁹⁶⁴ Vargas points out that although the dynamic changes to the Mexican *Constitution* to accommodate IPLCs' rights are commendable, the many systematic changes to the Mexican *Constitution* over a period of 100 years was so drawn out that many of these ethnic indigenous customary-law systems gradually decayed while others vanished altogether.⁹⁶⁵ For example, articles A1 and A2⁹⁶⁶ protect IPLCs' rights and article A4 protects the right to exercise their culture.⁹⁶⁷

In various articles of the Mexican *Constitution* the historical powers of the Catholic Church were also restricted – pointing to the centuries of resistance among liberals to the Catholic Church as the only (and very powerful) church in Mexico.⁹⁶⁸ Notably, article 3 provides for "educational services that shall be secular and, therefore free

⁹⁶³ Laaksonen *Indigenous Arts Policy: Initiatives and Challenges* 40; "In 2010, the National Commission for the Development of Indigenous Peoples (CDI) accounted 15,702,246 Indigenous people that represent 14.86% of the national population. The states with largest Indigenous population are: Yucatán (59.1%), Oaxaca (54.60%), Quintana Roo (31.69%), Chiapas (30.03%), Campeche (30.17%)".

⁹⁶⁴ Vargas 2008 *San Diego Legal Studies* 7.

⁹⁶⁵ Vargas 2008 *San Diego Legal Studies* 9.

⁹⁶⁶ Articles 1 and 2(A)I, as amended in 2011, of the *Mexican Constitution*. "A 1. Any form of discrimination, based on ethnic or national origin, gender, age, disabilities, social status, medical conditions, religious, opinions, sexual orientation, marital status, or any other form, which violates the human dignity or seeks to annul or diminish the rights and freedoms of the people, is prohibited. A 2. The nation is multicultural, based originally on its indigenous tribes. Indigenous community is defined as the community that constitutes a cultural, economic and social unit, settled in a territory and that recognizes its own authorities, according to their customs. A. This Constitution recognizes and protects the indigenous peoples' right to self-determination and, consequently, the right to autonomy, so that they can: I. Decide their internal forms of coexistence, as well their, economic, political and cultural organization".

⁹⁶⁷ Article 4, as added in 2009, of the *Mexican Constitution*. "Every person has cultural rights, has the right of access to culture and the right to enjoy state cultural services. The State shall provide the means to spread and develop culture, taking into account the cultural diversity of our country and respecting creative freedom. The law shall provide instruments that guarantee access and participation of any cultural expression".

⁹⁶⁸ Hernandez-Forcada 2002 *BYU L Rev* 302. While religious freedom as constitutional right is not within the scope of this thesis it is interesting to have some appreciation for the development hereof. "The development of religious freedom in Mexico can be divided into four basic time periods: (a) religious intolerance and hegemony (1810–1873), (b) secularization of the State (1873–1917), (c) state regulation of religion (1917–1992), and (d) normalization of church-state relations (1992–present)".

of any religious orientation". Article 130 provides that "the State and the Churches are separated entities from each other".⁹⁶⁹ The landed elite and the Catholic Church as an institution were closely linked financially, and article 27 of the Mexican *Constitution* also addresses land reform, as restrictions on land tenure by the Church are now regulated.

Religious associations, created in accordance with the terms provided in Article 130 and its regulatory law, can acquire, possess or manage properties essential for their religious activities.⁹⁷⁰

Land reform has always been a contentious issue in Mexico, with most land historically owned by the Catholic Church, wealthy Mexicans and foreigners, while smallholders and IPLCs retained little productive land. This inequality led to an impasse among citizens that is not IKS-related, but rather a product of the historic development of Mexico. Over the years, there were many visible attempts to address this issue, notably the Constitutional changes to address *Chinampas*.⁹⁷¹

4.4.2 *The public domain in Mexico*

The discussions about the public domain in Mexico are at large sector specific to allow the reader to get a realistic oversight. Some of the sectors touched on relate to agriculture, textiles and industrialisation. The starting point is libraries and museums as stewards of the public domain in Mexico. The role of libraries and databases in promoting, protecting, and broadening the public domain is well-established the world over, for example, the TKDL of India⁹⁷² and Project Gutenberg.⁹⁷³ Mexico is no exception to this practice. Some commentators point out that ever since Spanish rule, many surveys and specimen collections of Mexico's rich biodiversity have been conducted. These collections are now hosted by museums and other repositories within the public domain.⁹⁷⁴

⁹⁶⁹ Article 130 of the *Mexican Constitution*.

⁹⁷⁰ Article 27(II) of the *Mexican Constitution*.

⁹⁷¹ See para 4.4.4 where this is discussed.

⁹⁷² CSIR India *Traditional Knowledge Digital Library*.

⁹⁷³ Project Gutenberg *Project Gutenberg*.

⁹⁷⁴ Peterson, Navarro-Sigüenza and Gordillo-Martínez 2016 *Archives of Natural History* 4.

In a recent article, Brown makes some interesting observations on the dire need among young students from Mexico's IPLC to be able to access TK, and how this need has resulted in the Indigenous Nations Library Program (INLP) at New Mexico University in the USA. The INLP appreciates the importance of contextualising information literacy, respectful collection development, cultural sensitivity, inclusive research, and, more importantly, creating trust between the librarian as a collector of TK, and the IPLC as patrons of such TK. He also points to the importance of tribal newspapers as a dissemination tool,

because tribal journalists report on community news, culture, and language and provide accurate information about their people and traditions and outright fallacies [and] the information they communicate often educate[s] and correct[s] misinterpretations.⁹⁷⁵

With most libraries also moving toward digitising their collections, it is important to undertake a legal review of Mexico's public domain, where the IPLC are self-propagating TK and TCE. Furthermore, libraries should be encouraged to collaborate more closely with museums where TCE are held in the form of artefacts or paintings – an opportunity which Raath has already pointed to. Raath refers to Lévi-Strauss's work on cultural relativism which influenced UNESCO's work on cultural diversity and the acknowledgement of other cultures which "contribut[e] to the fullness of all others",⁹⁷⁶ when he points out how closely cultural heritage is aligned with cultural identity and IKS, and how museums can contribute to foster and broaden the public domain in this regard.

The rapid industrialisation of the USA during the late 1800s benefited Mexico's technological development and late-century economic growth. Beatty analyses the impact of Western technologies and IP protection from 1870 to 1911. Technology transfer occurred with American, British, German, French, and Belgian nationals who came to Mexico to invest and operate industries ranging from tobacco, to precious metal refining, to glass manufacture. Another form of technology transfer occurred through print materials that arrived daily aboard ships or trains, or via

⁹⁷⁵ Brown 2017 *Collection Management* 202.

⁹⁷⁶ Raath and Brits 2018 *TSAR/JSAL* 348.

telegraph. These materials included newspapers, trade journals, blueprints, textbooks, and patent applications "that was quickly consumed in Mexico's cities, towns, and in more distant mining camps".⁹⁷⁷ One of Beatty's findings is that although the technology transfer stimulated technology and patenting activity among the local population, most Mexicans instead focused on entrepreneurial and trading activities. According to her findings, 90 per cent of inventors who filed patents in Mexico were non-Mexicans. In conclusion, Beatty states that "the political economy of technological change overwhelmingly favoured borrowing [IP] while it undermined opportunities to develop domestic expertise".⁹⁷⁸ Be that as it may, the influx of modern Western knowledge by means of printed works broadened the Mexican public domain, as had been the case during the Aztec Empire and Spanish rule when textile technologies and related knowledge systematically migrated to the South Americas.⁹⁷⁹

The relationship between agriculture and the public domain is slightly more complex because agricultural knowledge transfer dates to ancient times, with Mexico being the site where maize was domesticated, to give but one example. Today, maize is genetically modified (GM), with a Mexican scientist, Dr Sanjaya Rajaram, a World Food Prize winner for his genetic work on maize.⁹⁸⁰ Ancient maize domestication took place through verbal knowledge transfer. In contrast, the modern GM maize landscape is a domain fiercely protected by international patents – and in between, knowledge worthy of the World Food Prize found its way into the public domain.⁹⁸¹

4.4.3 Property as a Constitutional right in Mexico

4.4.3.1 Land tenure

Land tenure is regulated by the Mexican *Constitution*. Article 27 provides that "the Nation has an original right of property over the land and waters [and] the right to

⁹⁷⁷ Beatty 2015 *Estudios de Economía* 47.

⁹⁷⁸ Beatty 2015 *Estudios de Economía* 63.

⁹⁷⁹ The Mexican textile industry is further discussed in para 4.4.6.

⁹⁸⁰ De Castro, Hogenboom and Baud (eds) *Environmental Governance in Latin America* 103.

⁹⁸¹ See para 4.4.4 where agriculture is further discussed.

transfer its property's domain to private individuals", subject to expropriation for public utility and subject to compensation.⁹⁸² Article 27 also deals with communal land, "where the law shall protect the wholeness of the indigenous groups' lands".⁹⁸³

After the Mexican *Constitution* was accepted in 1917, land reform gained momentum, leading to the *ejidos* for communal land use. Other land reform measures included *mixteca – bienes comunales* (commons), *tierras de uso común* (collective lands managed by community meetings), *comunidades agrarias* (communal forests), and *tierras privadas* (private lands).⁹⁸⁴ *Ejidos* proved largely unsuccessful,⁹⁸⁵ and article 27 of the Mexican *Constitution* was amended in 1992 to permit the privatisation and the sale of *ejido* land.⁹⁸⁶ *Comunidades agrarias* cannot be sold and is rather seen as a bundle of rights where community members enjoy access, use, exclusion, and some management rights over forests, while the government retains control.⁹⁸⁷

Land tenure reform also led to the classification of restricted and permissible zones for foreigners interested in acquiring real estate in Mexico.⁹⁸⁸ Many countries, including the USA, consider this provision a violation of current international law, discriminatory, and illegal.⁹⁸⁹

⁹⁸² Article 27 of the *Mexican Constitution*. "The legal capacity of farming cooperatives and communal land is recognized and their ownership over the land is protected, whether for human settlements or for productive activities. The law shall protect the wholeness of the indigenous groups' lands. In order to promote respect and strengthening of the community life of farming cooperatives and communal land, the law shall protect the lands for human settlements and shall regulate the uses of communal lands, forests and waters. The State shall implement actions to improve the quality of life of in such communities".

⁹⁸³ Article 27 (VII) of the *Mexican Constitution*.

⁹⁸⁴ An *ejido* is an area of communal land used for agriculture in which community members have *usufruct* rights rather than ownership rights to land, which is held by the state. *Ejidatarios* can pass their rights on to their children.

⁹⁸⁵ Vargas 1996 *Ga J Int'L & Comp L* 538; The reasons cited for the unsuccessful nature of *ejidals* are illegal appropriation practices among *ejidatarios*, as well as the administrative processes that were extremely long and bureaucratic.

⁹⁸⁶ De Castro, Hogenboom and Baud (eds) *Environmental Governance in Latin America* 96.

⁹⁸⁷ De Castro, Hogenboom and Baud (eds) *Environmental Governance in Latin America* 250.

⁹⁸⁸ Article 27(I) of the *Mexican Constitution*. "In a strip of 100 kilometers along the borders, and of 50 kilometers along the coasts, foreigners under no circumstance may acquire the ownership over said lands and waters".

⁹⁸⁹ Vargas 1996 *Ga J Int'L & Comp L* 532.

It is beyond the scope of this thesis to investigate the historical and political reasons for the complex land tenure issues in Mexico. Suffice to say for now that the experience of *comunidades agrarias* and *ejido* communities in Mexico suggests that, despite the relevance of legal recognition of property rights over lands and forests, this is hardly sufficient for IPLC to realise their economic, environmental, and social potential without "favourable public policies as well as access to adequate training and technical advice".⁹⁹⁰ Vargas adds an argument to this point – that one of the reasons why the *ejido* system failed was because the original *ejido* system of community property dated back to the Aztec Empire and that the customary law systems required for the sustainable coexistence of *ejidos* gradually decayed or disappeared entirely during Spanish rule.⁹⁹¹

This point regarding the importance of recognising customary law is reflected, to some extent, in the experiences in other countries. In Australia, for example, the situation is that their *Native Title Act* attempted to strike a balance between land tenure and access to land within a customary-law context.⁹⁹² Two USA examples are Hawaii, where the IPLCs' lack of understanding of the Western land tenure laws and their continued use of customary law for communal land, resulted in native Hawaiians owning only fourteen per cent of the land;⁹⁹³ and the *Daves Act*⁹⁹⁴ in terms of which many Indian landowners ended up both impoverished and displaced after selling their land back to white settlers.⁹⁹⁵ This point may also be seen as an early warning to South Africa that land reform without the accompanying transfer of knowledge and technology coupled with mentorship may prove a futile exercise, leaving IPLC unempowered.

⁹⁹⁰ De Castro, Hogenboom and Baud (eds) *Environmental Governance in Latin America* 251.

⁹⁹¹ Vargas 2008 *San Diego Legal Studies* 8; Vargas draws the reader's attention to similar real estate systems of communal property systems, for example the Russian *kolhoz* and the Israeli *kibutz*. In both these cases the systems are functioning well because the customary law was never negated, as was the case in Mexico.

⁹⁹² The Native Title Act is discussed in para 4.2.5.

⁹⁹³ Chander and Sunder 2004 *California Law Review* 1347.

⁹⁹⁴ *Indian General Allotment Act (USA)* 388 of 1887

⁹⁹⁵ Litman 2018 *The Cambridge Law Journal* 553.

4.4.3.2 Industrial property

Industrial property (the collective term used by Mexicans for IP) is not entrenched as property in the Mexican *Constitution*. However, in 2016 the Mexican *Constitution* was again amended to allow Congress the power to "legislate on copyrights and other related figures of intellectual property".⁹⁹⁶ In addition, two pieces of legislation – the *Law on Industrial Property*⁹⁹⁷ and the *Law on Copyright*⁹⁹⁸ – deal respectively with patents, trademarks, and GI, and with copyright. As mentioned earlier, Mexico does not follow the *stare decisis* principle, resulting in few legal precedents on proprietary rights other than land ownership. However, on copyright as a proprietary right, some American case law is helpful, and at least one such case deserves further analysis – the *Alameda Films* case.⁹⁹⁹

4.4.3.3 Alameda Films case

The *Alameda Films* case requires a brief background note on article 18 of the *Berne Convention*¹⁰⁰⁰ which the USA joined only in 1989,¹⁰⁰¹ followed by the *Uruguay*

⁹⁹⁶ Article 73 XXV, as amended in 2016, of the *Mexican Constitution*.

⁹⁹⁷ *Law on Industrial Property (Mex)* 1991.

⁹⁹⁸ *Federal Law on Copyright (Mex)* 1997.

⁹⁹⁹ *Alameda Films v Authors Rights Restorat (USA)* 331 F3d 472 (5th Cir 2003) 1-11 (*Alameda Films* case).

¹⁰⁰⁰ Article 18 of the *Berne Convention* deals with the retrospective recognition of copyright in works that have "not yet fallen into the public domain in the country of origin through the expiry of the term of protection". All (including new) member states of the Union are obliged to enforce copyright of works recognised in terms of other member states' copyright laws. Article 18 must be read together with article 3 which provides for the recognition of the country in which the author created the work. In the first instance, that country's law must recognise the author and copyright in the work. Countries such as the USA which joined the Union relatively late, experienced Constitutional challenges with the retrospective nature of this provision; Articles 18 (1-3) of the *Berne Convention (1886)*. "(1) This Convention shall apply to all works which, at the moment of its coming into force, have not yet fallen into the public domain in the country of origin through the expiry of the term of protection. (2) If, however, through the expiry of the term of protection which was previously granted, a work has fallen into the public domain of the country where protection is claimed, that work shall not be protected anew. (3) The application of this principle shall be subject to any provisions contained in special conventions to that effect existing or to be concluded between countries of the Union. In the absence of such provisions, the respective countries shall determine, each in so far as it is concerned, the conditions of application of this principle".

¹⁰⁰¹ *Lawrence Golan, et al v Eric H Holder, Jr, Attorney General, et al (USA)* 565 US 302 (2012) 24 (*Golan* case); The USA the Constitutional compliance of the retrospectivity of their amended copyright law was confirmed in 2012 in the *Golan* case.

Round Agreements Act (URAA) which came into effect in 1995.¹⁰⁰² Within this context, the plaintiffs (Alameda and 24 other film-makers) claimed copyright infringement in 81 Mexican films, which the defendants distributed in the USA in the mid-1980s – the so-called 'golden age' of Mexican movies. Sixty-nine of these movies legitimately lost their copyright protection in the USA for failure to comply with USA copyright formalities in force before 1994. However, the plaintiffs relied on the "automatic restoration of copyrights in various foreign works that had fallen into the public domain in the U.S. as a result of their foreign authors' failure to follow U.S. copyright formalities,"¹⁰⁰³ which became enforceable after the *URAA* came into operation. The defendant appealed unsuccessfully, alleging that "a production company is not considered an author under Mexican law and cannot hold a copyright".¹⁰⁰⁴ While recognising Mexican law and the implications of the *URAA*, the court requested *Amicus* briefs from the Mexican government stating that in Mexico companies can indeed hold copyright in works. "This was based upon the *Ley Federal de Derecho de Autor* article 59 (1963), which states that legal entities can hold the copyright".¹⁰⁰⁵

4.4.4 Agro-ecology

This paragraph commences with a case study to contextualise the intimate relationship between the land and IKS in Mexico.

4.4.4.1 Case study: Chinampas

The *Chinampas* method is a highly productive form of lacustrine agriculture based on small, rectangular plots of land reclaimed from lakes in the Valley of Mexico and made by building up mud scooped from the lakebed. The plots are typically

¹⁰⁰² The background is briefly summarised, with reference to Vargas 2009 *San Diego Legal Studies* 11; The USA had to comply with the provisions of articles 3 and 18 the *Berne Convention (1886)* when it joined the Union in 1989. At that time authors also had to comply with U.S. copyright formalities, such as registering and renewing copyrights for copyright in their works to be acknowledged by the USA. The USA then adopted the *URAA*, thereby amending its Copyright Act in compliance with Berne. These two requirements were subsequently dropped.

¹⁰⁰³ *Alameda Films v Authors Rights Restorat (USA)* paras 474-476.

¹⁰⁰⁴ Vargas 2009 *San Diego Legal Studies* 11.

¹⁰⁰⁵ *Alameda Films v Authors Rights Restorat (USA)* para 478; Vargas 2009 *San Diego Legal Studies* 11.

2.5 – 10 metres wide by 100 metres long. The fertility of the mud and the way water is filtered up the *chinamil* (a solid fence) that is continuously fortified with floating mud and plant material makes this method very productive and ecologically friendly. *Chinampas* was developed during the ancient Aztec Empire which ruled the area around the Valley of Mexico before the Spanish invasion (more specifically in the borough of Xochimilco on the southern edge of Mexico City). The recognition of the value of *chinampas* in the literature reflects the tradition of agroecology in Mexican agrarian studies.¹⁰⁰⁶

Today, *chinampas* contribute to horticultural production and attract tourists where a living museum of ancient times amazes both tourists and horticulturalists from all over the world. *Chinampas* are also recognised as an Important Global Agricultural Heritage System, and Xochimilco has been recognised as a World Heritage site.¹⁰⁰⁷ This technique has since found application in countries as diverse as Germany and Bangladesh.

The TK-related to *chinampas* has been in the public domain since the ancient Aztec Empire and was transferred from one generation to the next throughout the Spanish rule until modern times. Today, GM crops on open land may well compete with the crops grown on the *chinampas*, but with a growing international demand for organic food, this technique will continue to stand the test of time. However, from an IKS perspective, it is difficult to comprehend how the IPLCs will benefit other than by local farming and tourism. For example, even if fresh produce is linked to GI, the market will not be prepared to pay a premium for the fresh produce grown on these *chinampas*. Nevertheless, then, tourism as a tool to promote IKS should not be underestimated since it stimulates and incentivises IPLCs to continue living in a way that strengthens their TCE and TK. Lastly, selling fresh produce and attracting tourists might be related to monetary benefits, but one should not lose sight of the fact that this monetary benefit enables these IPLC to grow and develop new TK and TCE.

¹⁰⁰⁶ Cox, Tiago and Rivera 2020 *Journal of Documentation* 3.

¹⁰⁰⁷ Cox, Tiago and Rivera 2020 *Journal of Documentation* 4.

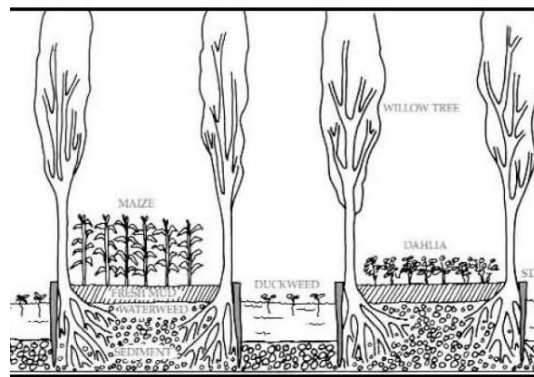


Figure 4.7: Chinampas¹⁰⁰⁸

In a country where only six per cent of farmers are industrialised or mega-farmers, TK relates, in the main, to traditional farming practices, so much so that Mexican commentators instead refer to agro-ecology.¹⁰⁰⁹ This term is acceptable because it provides the necessary link between TK, land, and GR required in this thesis. Ramos et al add a further layer to agro-ecology by referring to 'inhabited place', a concept that "accumulate[s] and reflect[s] evidence of the different people who have occupied and transformed a place making it a historical and emotive legacy".¹⁰¹⁰ Within the context of inhabited place, they find that the IPLC of Mexico have developed the indigenous scientific knowledge necessary to apply to an agricultural system that corresponds to their local environment. Food becomes the metaphorical instrument for human culture that absorbs land into our bodies. These environmentalists' findings correlate with the findings of Barrera, an ethnopedologist, that the soil-classification system developed by ancestral indigenous people substantially correlates with Western geopedological approaches. The two systems are interdependent and "the integration of knowledge systems

¹⁰⁰⁸ Photo obtained from World Bank 2020 http://www.tkw.org/w/index.php/LOCAL_APPLICATION_OF_THE_TECHNIQUE_FLOATING_GARDENS_30.

¹⁰⁰⁹ De Castro, Hogenboom and Baud (eds) *Environmental Governance in Latin America* 91.

¹⁰¹⁰ Ramos de Robles, Garibay-Chávez and Curiel-Ballesteros 2018 *Cultural Studies of Science Education* 1.

leads to better understanding of land management practices and implementing soil conservation measures".¹⁰¹¹

4.4.5 Traditional medicinal knowledge

Giovannini, a pharmacognosist, conducted a scientific study among the Oaxaca people in the rural south of Mexico. Briefly, the study aimed to test the correlation between the knowledge of modern pharmaceuticals and the TMK of plants among the Oaxaca people. The study confirmed this hypothesis and it resulted in some concerning findings, such as that the younger generation attending modern schools have less knowledge of TMK than the older generation.¹⁰¹² A closer look at the study from a public domain perspective reveals that the Mexican people embrace "the complementarities of traditional medicine and biomedicine as available health care options" as well as the "continuing adoption of new medicines into indigenous Mexican pharmacopoeias", which has been documented since Spanish rule. Incidentally, the Spanish were also greatly interested in the medicinal plants of Mexico (the New World for them at that time) and subsequently incorporated many indigenous medicinal plants into their medicine.¹⁰¹³ These findings were confirmed in a later study among the Oaxaca people, with the additional finding that the "most important reason people still value medicinal plant knowledge was because of their role in treating culture-bound syndromes",¹⁰¹⁴ such as *mal de ojo*.¹⁰¹⁵

The northern Mexican states of Nuevo León, which borders Texas, and Sonora, which borders Arizona, led the development of modern medicine in Mexico during the late nineteenth and early twentieth centuries, mainly because of their geographical access to North-American trade and industry, but also because of the presence of a medical school in Monterrey, Nuevo León. As in Oaxaca, the people of Nuevo León and Sonora embraced a hybrid TMK/modern medicine regime. In

¹⁰¹¹ Barrera-Bassols "Linking Ethnopedology and Geopedology: A Synergistic Approach to Soil Mapping. Case Study in an Indigenous Community of Central Mexico" 167.

¹⁰¹² Giovannini *et al* 2011 *Soc Sci Med* 928, 935.

¹⁰¹³ Giovannini *et al* 2011 *Soc Sci Med* 935-936.

¹⁰¹⁴ Pérez-Nicolás *et al* 2017 *Economic Botany* 13.

¹⁰¹⁵ *Mal de ojo* (the cast of the evil eye) is a curse believed to be cast on a victim by evil spirits or witches.

addition, medical doctors also appreciated the hybrid system and continued with the pharmacopoeia started by the Spanish during their rule.¹⁰¹⁶ Dr José Eleuterio González was one of these doctors who convinced "those who studied medicine of the need to continue to study botany as the most important and oldest branch of the healing arts".¹⁰¹⁷ González catalogued an extensive list of all the imported and native plants he found growing in and around Monterrey. This Linnaean-based pharmacopoeia was organised in categories of therapeutic significance and led to Mexico's significant contributions to universal medicine.

In the knowledge that the Mexican people are, as part of broadening their knowledge, willing to share TMK with others and use modern pharmaceuticals as complementarities, it is rather problematic that: "[Western] companies avoid complex negotiations with local communities – buying, for example, medicinal plants on local markets, and hiring and training collectors and growers of plants required for natural cosmetics".¹⁰¹⁸ Another problematic issue is that although the public domain regarding TMK has been broadened with the development of the Mexican pharmacopoeia, the IPLC who contributed to this pharmacopoeia have never been recognised – neither by González nor by other contributors.¹⁰¹⁹

4.4.6 *Traditional cultural expressions and cultural appropriation*

4.4.6.1 The Mixe people's huipils and the Mayan people's trademark

In 2015, the *Mixe people's huipil* case dealing with Mexican IKS was, ironically, heard in a French court. This case was between two French design houses, Antik Batik (the plaintiff) and Isabel Marant. Isabel Marant is well known for bohemian aesthetics and stated in court that the Oaxacan culture inspired the design house of Mexico and did not claim proprietary rights to the design of the *huipil* (ie, traditional blouse). Antik Batik, the ready-to-wear design house, claimed to be the

¹⁰¹⁶ Shelton 2019 *Latin Americanist* 400; "Spanish collectors of medicinal plants working in the service of the Royal Botanical Garden depended heavily on indigenous informants to learn the names, properties, and many uses of American plants".

¹⁰¹⁷ Shelton 2019 *Latin Americanist* 405.

¹⁰¹⁸ De Castro, Hogenboom and Baud (eds) *Environmental Governance in Latin America* 91.

¹⁰¹⁹ Shelton 2019 *Latin Americanist* 409.

true owner of the Mixe embroidery design's copyright, which led to this court case where Marant was accused of copyright and design right infringement by the plaintiff. The French court eventually held that neither Batik nor Marant could claim rights to the design because it originated from the indigenous Mixe communities in Oaxaca, Mexico.¹⁰²⁰

Before the case was heard, the Mixe community in Santa Maria Tlahuitoltepec, Oaxaca in Southern Mexico, accused Isabel Marant of copying its traditional embroidery design, alleging that Marant was guilty of plagiarism and cultural appropriation by using its 600-year-old cultural designs. It never took formal action. Under UNESCO's *CSICH*, which Mexico ratified in 2005, the Oaxaca's congress later declared the Mixe community's traditional designs and language intangible cultural heritage. In effect, this recognises these designs as unique to, and originating in, indigenous Mixe culture – or as UNESCO's slogan reads, "keep it lively and pass it on".¹⁰²¹

Two public domain matters surface from this case study. First, if the Mixe people's claims that the traditional embroidery techniques and traditional wearing of the *huipils* date back 600 years, the TK and TCE related to these designs are by international standards in the public domain. Marant's argument that the designs were merely 'native inspired' can therefore not necessarily be said to "demonstrate how easily a foreign entity can culturally appropriate a design", as Gonzalez does.¹⁰²² Gonzalez's observation that the Mixe people did not seek monetary damages but rather fought for the recognition of the design as their own correlates with Lewis's arguments that the Mixe people rather strive towards self-determination,¹⁰²³

¹⁰²⁰ Pozzo 2020 *Laws* 9; *Antik Batik v Isabel Marant (France)* 15/03456 (2015) 1; The case was decided in the District Court of Paris, France (*Tribunal de Grande Instance de Paris, 3e Chambre, 4e Section, 3 Décembre* 2015, No. 15/03456).

¹⁰²¹ UNESCO 2003 <https://ich.unesco.org/en/what-is-intangible-heritage-00003>. A committee meets annually to evaluate nominations proposed by member States and decide whether or not to inscribe those cultural practices and expressions of intangible heritage on the Convention's Lists. Mexico has listed eleven cultural practices to date.

¹⁰²² Gonzalez 2019 *T Jefferson L Rev* 18.

¹⁰²³ Lewis-Clemmensen *Indigenous peoples' self-determination - Market-inclusion or not?* 26; The Mixe community normally sells their *huipils* for around 300 pesos/US\$16, whereas Isabel Marant's shirts was sold for 7000 pesos/\$365".

although it is questionable that the French fashion houses disregard the Mixe people's IP right, simply because there is no IP – the TK and TCE are in the public domain.



Figure 4.8: Mixe huipil designs. On the left, Mixe women wearing *huipils* and on the right, the *huipil* designed by Marant.¹⁰²⁴

The second matter regarding the public domain is that there is evidence that the Mixe people have used Western technologies (eg *Singer* sewing machines) since the 1930s to do embroidery. Furthermore, although some authentic *huipils* are still loomed or handwoven, the weaving technique originates from the East and the Andean region. At the same time, the Spanish introduced materials such as silk and wool to Mexico.¹⁰²⁵ Therefore, the *huipils* designs, the material and the technologies used to make these huipils, have been influenced over the centuries by other cultures. These materials and technologies happen to be in the public domain or commercially available and the Mixe people can therefore not claim sole ownership of these designs and embroidery techniques.

The Mixe people's *huipils* example is not the only case of alleged cultural appropriation. Another IC, the Mayan people of Mexico, are also renowned for their

¹⁰²⁴ Photos copied from the article of Lewis-Clemmensen *Indigenous peoples' self-determination - Market-inclusion or not?* 32.

¹⁰²⁵ MTO 2007 <https://museotextildeoaxaca.org/historia/>.

traditional fabric and indigenous designs used for various handicrafts. In this case, the Mayan people embraced the assistance of a French designer, Christian Louboutin. Together with the *Fundación Haciendas del Mundo Maya*¹⁰²⁶ they "preserve authentic craftsmanship and ... ensure the long-term economic empowerment of Maya artisans". Today, Taller Mayatm is a well-established trademark. Although there is fierce criticism that Mayan artisans are being paid too little to manufacture *bordados* (ie, embroidered fabric), the collective deal is well accepted by the Mayans. Furthermore, Taller Maya is a member of the World Fair Trade Organization, which guarantees compliance with global fair-trade principles.¹⁰²⁷

With these two examples in mind, it will be useful to see how international law instruments will deal with cultural appropriation. The *Berne Convention* to which Mexico is a contracting party, and Mexico's *Copyright Law* adequately provide for copyright protection of, for example, *huipil* designs.¹⁰²⁸ Furthermore, the Mexican *Copyright Law* is one of a few copyright instruments which expressly protects the public domain, stating that the "works in the public domain may be freely used by any person, subject to the sole condition of respect for the moral rights of the authors concerned".¹⁰²⁹ From an international perspective, copyright in *huipils* cannot be claimed and that the designs are indeed in the public domain, albeit by the Mixe people's own admission that the tradition dates back more than 600 years.¹⁰³⁰ Similarly, Mexico is a signatory to the *Paris Convention* and its *Law on Industrial Property*¹⁰³¹ adequately deals with trademark protection.

¹⁰²⁶ *Fundación Haciendas del Mundo Maya* is an indigenous organisation that aim to have the Maya identity and culture recognised.

¹⁰²⁷ Lewis-Clemmensen *Indigenous peoples' self-determination - Market-inclusion or not?* 16.

¹⁰²⁸ Article 1 of the *Copyright Law (Mexico)*.

¹⁰²⁹ Articles 152 and 153 of the *Copyright Law (Mexico)*. "A 152. Works in the public domain may be freely used by any person, subject to the sole condition of respect for the moral rights of the authors concerned. A 153. The use of the work of an anonymous author shall be free provided that the said author does not reveal his identity or that there is no recognized owner of economic rights".

¹⁰³⁰ The reader is reminded of the amendments to article 15(4) of the Berne Convention in 1976 to accommodate indigenous communities. See para 3.4.1 in this regard.

¹⁰³¹ *Law on Industrial Property (Mex)*.

4.4.6.2 Navajo case, USA

In the *Navajo* case, this time heard in the USA, Vézina draws the fashion industry's attention to adopting respectful behaviour towards i) the use of TCE in their creations; and ii) respectful acknowledgement of creators/authors' *droit moral*.¹⁰³² The Navajo Nation, a sovereign Indian nation in the USA with over 300 000 enrolled members, won the trademark infringement case against Urban Outfitters. However, as pointed out by Vézina, the Navajo Nation – relying on the *droit moral* of their culture – did not convince the court that the sale of underwear and alcohol flasks diluted their brand. They argued that products like its Navajo Flask are

derogatory, scandalous, and contrary to the Navajo Nation's principles because it has long banned the sale and consumption of alcohol within its borders and the Navajo Nation does not use its mark in conjunction with alcohol.¹⁰³³

The case was taken on appeal but later settled out of court after the parties agreed to collaborate and "entered into a supply and licence agreement outlining their joint plan to collaborate on a line of Native American jewellery".¹⁰³⁴ Vézina's remark that this settlement illustrates that "putting an end to cultural appropriation in fashion through policy, legal and practical measures would positively impact efforts to protect TCE in other cultural industries such as music, film or art",¹⁰³⁵ is questionable. The two parties settled for commercial reasons; not because the Navajo nation sought to control their cultural identity or appropriation arising from repurposing IP principles, as suggested by Véniza.

While recognising that the balance is yet to be found between the inward-looking cultural appropriation by the Mixe people and the international embracing of TCE by the Mayan people, Gonzalez comments that "far from even approaching intellectual property rights, Mexico needs to first recognize the importance of indigenous peoples"¹⁰³⁶ – a view supported in this thesis. Furthermore, the

¹⁰³² Vézina 2019 *Centre for International Governance Innovation* 1.

¹⁰³³ *Navajo Nation, Corp v Urban Outfitters, Inc (USA)* 935 F Supp 2d 1147 (DNM 2013) para 1178 (*Navajo* case).

¹⁰³⁴ Vézina 2019 *Centre for International Governance Innovation* 4.

¹⁰³⁵ Vézina 2019 *Centre for International Governance Innovation* 16.

¹⁰³⁶ Gonzalez 2019 *T Jefferson L Rev* 26.

boundaries between cultural borrowing and cultural appropriation can be subtle and subjective, but Mexico's culture has already gone global, with Mexican music, tequila, tacos, and margaritas, found in all corners of the world. Cultural appropriation should therefore be considered through the lens of how the Mexican tourism industry has already embraced TK and TCE, of which the tour operators at least try to explain to tourists what TCE and TK mean to the people of that culture and the correctness of the use of certain cultural elements.¹⁰³⁷

With tourism, IPLC can control how cultural knowledge is transferred to third parties and how the boundaries of the public domain in respect of their TCE are determined. The fashion industry is taking cultural products outside the *locus* of control of these communities, hence the Mixe and Mayan controversies above. Alleged claims by activists that the fashion industry appropriates culture by means of plagiarism or other illegal measures require analysis. This starts with the Mexican *Constitution*.

The Mexican *Constitution* entrenches freedom of speech,¹⁰³⁸ a right that the fashion industry regards as the "right to express ourselves in what we choose to wear",¹⁰³⁹ while understanding that such freedom does not mean that one is protected from the social or economic ramifications from making fashion statements. While there is no relevant case law on freedom of speech in Mexico, legal scholars from Mexico would concur with the USA courts that clothing can communicate political, cultural, and religious messages quite powerfully. Mexican courts will most likely come to the same conclusion as USA courts where it was recently held that citizens have the Constitutional right to express their political affiliations and affinities,¹⁰⁴⁰ as well as religious beliefs,¹⁰⁴¹ through their clothing.¹⁰⁴² Extrapolating this Constitutional right to political and religious expression through their clothing to the way culture is expressed through clothing would also seem to be appropriate and perfectly

¹⁰³⁷ Gertner 2019 *Thunderbird International Business Review* 875.

¹⁰³⁸ Article 6 of the *Mexican Constitution*; "Free speech shall be restricted neither judicially nor administrate, but when it represents an attack to the public morality or individual rights".

¹⁰³⁹ Boland-DeVito 2020 *Fordham IP, M&E L J* 534.

¹⁰⁴⁰ *USA Minn Voters Alliance v Mansky (USA)* 138 S Ct 1876 (2018) (*Mansky* case).

¹⁰⁴¹ *Equal Emp't Opportunity Comm'n v Abercrombie & Fitch Stores, Inc (USA)* 135 S Ct 2028 (2015) (*Abercrombie* case).

¹⁰⁴² Boland-DeVito 2020 *Fordham IP, M&E L J* 494.

reasonable. However, when IPLC claim cultural appropriation when clothing and fashion trends are inspired by traditional designs it appears to be unconstitutional, or the breeding ground for tension between two or more countries in the event of more than one community appropriating culture. In this regard, the following case study will contextualise this comment.

4.4.6.3 Case study: Artisanal talavera of Puebla and Tlaxcala (Mexico) and ceramics of Talavera de la Reina and El Puente del Arzobispo (Spain) making process

In 2019, in accordance with the prescribed manner of UNESCO's *CSICH*, Mexico and Spain successfully lodged a combined application for the recognition of artisanal *talavera* of Puebla and Tlaxcala (Mexico) and ceramics of Talavera de la Reina and El Puente del Arzobispo (Spain) making process on the Representative List of the Intangible Cultural Heritage of Humanity. The dual registration was lodged by Mexico and Spain, both claiming that "artisanal making processes, including making techniques, enamelling and decoration, retain the same pattern as in the sixteenth century, [with both countries recognising that the] TK is mostly borne by master earthenware artisans and ceramists, who have developed their skills over time and transmit them to the next generations through oral transmission in their artisanal workshops or the family setting".¹⁰⁴³ According to the formal application documents submitted to UNESCO the following statements were made:

In Spain, Talavera de la Reina is a city in the province of Toledo, located next to the Tajo river. The success of the *talavera* ceramics spread throughout the Iberian Peninsula, mainly by the support of the monarchy, and arrived in Mexico along with *talavera* artisans, in the 16th century.

In Mexico, the Talavera Zone is located in the Puebla-Tlaxcala Valley, in the region of the Central Plateau, approximately 200 km away from Mexico City. The artisanally-made *talavera* was favoured by the access to local raw materials, the low cost and the experience of the indigenous workforce in handling clay.

The Mexican and Spain locations both count with a vast supply of water, boulders of clay, sandbanks and good means of communication that help them become outstanding earthenware centres since early days.¹⁰⁴⁴

¹⁰⁴³ UNESCO, *Talavera ceramics making process* (UNESCO 2019).

¹⁰⁴⁴ UNESCO *Talavera ceramics making process*.

	
Figure 4.9: Traditional process of <i>pisado del barro</i>¹⁰⁴⁵	Figure 4.10: Painting technique on a ceramic workpiece from Talavera de la Reina¹⁰⁴⁶

Within this context, Don Quixote would have been surprised to learn that, in 2017, the Dutch registered the craft of the miller operating windmills and watermills, using the same UNESCO protocols that Spain and Mexico jointly used to appropriate *talavera* as cultural heritage in 2019.¹⁰⁴⁷ Cultural appropriation will not disappear from the IKS discourse simply because creativity, experimentation, and appreciation of different things (e.g. cuisines) is where new cultures and traditions arise and influence other cultures.

4.4.7 Geographical indications

The *Law on Industrial Property* also provides how GIs are dealt with in Mexico. From the WIPO Lex database, it is clear that Mexico is very actively using GI to protect its IKS and that the Mexican government and people well accept this practice.¹⁰⁴⁸ However, in the case of *talavera*, the UNESCO route was followed in tandem with

¹⁰⁴⁵ UNESCO *Talavera ceramics making process*.

¹⁰⁴⁶ UNESCO *Talavera ceramics making process*.

¹⁰⁴⁷ WIPO, *Craft of the miller operating windmills and watermills* (WIPO 2017).

¹⁰⁴⁸ See WIPO, *WIPO Lex Database: Laws of Member States* (WIPO 2020), the repository where Mexico lodged various GI notices in compliance with a 63(2) of the *TRIPS Agreement (1994)*.

the *Lisbon System* to protect the subject matter.¹⁰⁴⁹ In this regard, both Mexico and Spain applied for the UNESCO protection, while the government of Mexico filed a GI for *talavera*, which was granted.¹⁰⁵⁰

4.4.8 Concluding remarks on Mexico

In general, Mexico has embraced international law instruments to protect and promote IKS as entrenched in its *Constitution*.¹⁰⁵¹ Within this framework of compliance with the *Berne Convention*, *Paris Convention*, the *Lisbon System*, the *TRIPS Agreement*, and other international law instruments, it appears that Mexico continues to follow a shotgun approach to secure the widest possible international protection for its cultural goods (from fashion to pottery to tequila), which is not useful if one seeks to understand the legal rationale for the protection and exploitation of IKS.

For example, Pozzo, a European legal scholar with a deep understanding of the international fashion industry, addresses the issue of cultural appropriation by the IPLC of Mexico. While understanding the subtext of a famous writer who once said that "fashion is a form of ugliness so intolerable that we have to alter it every six months",¹⁰⁵² she comments that *huipils* will be long out of fashion in Europe when the Mixe women still wear and sell *huipils* at 300 pesos a piece in Mexico. This might be true, but the fashion houses made their money and the Mixe women not. She also quotes from the Batik website, which forms the essence of her argument:

to embody the dandy elegance of a globetrotting woman, [and whose designer invents] a wardrobe that helps you remember the best moments of a travel[er] who has visited the whole world.¹⁰⁵³

¹⁰⁴⁹ *UNESCO CSICH (2003)*.

¹⁰⁵⁰ See application AO 833 on the WIPO, *Lisbon Express: GI and AOO Database* (WIPO 2015).

¹⁰⁵¹ Article 133, as amended in 2016, of the *Mexican Constitution*. "A 133. This Constitution, the laws derived from the Congress of the Union and enacted by the Congress of the Union, and all the treaties made and execute by the President of the Republic, with the approval of the Senate, shall be the supreme law of the country".

¹⁰⁵² She quoted Oscar Wilde.

¹⁰⁵³ See Pozzo 2020 *Laws* 9, where she quotes from Antik Batik's website.

Her point with this is that cultural appropriation involves more than the conventional IP arguments. She says, "the constant desire to innovate with original and effective solutions led Western designers to incorporate other cultures' distinctive looks, reinterpreted by the designer's creativity and [hopefully] sensitivity to other cultures".¹⁰⁵⁴ She also points out that, as with the *talavera* example, cultural appropriation of the textile industry has always been the reciprocal trade of goods and materials, styles, shapes, textiles, weaving methods, and beauty ideals. Pozzo's view is echoed by Brown from an anthropologist's perspective. He says that "if we turn culture into property, its uses will be defined and directed by law".¹⁰⁵⁵ In a world of litigation and bureaucratic control, cultural protection will stand in the way of the free exchange of ideas.

In 1994, after ratifying the *CBD*,¹⁰⁵⁶ Mexico established the Secretariat of the Environment and Natural Resources, which led to an Environmental Policy and National Plan for Sustainable Development. Many programmes within this framework were dedicated to native and peasant populations. Some commentators are highly critical and claim that these developmental goals negate the promotion of natural resources favouring large-scale commercial farming.¹⁰⁵⁷ Other commentators take the opposite view, pointing out that among many IPLC, there is indeed a robust culture of embracing natural resources and transferring the knowledge in a traditional manner. Notable here are the fisherwomen in Veracruz and the legend of *Achaneh*.¹⁰⁵⁸ Today, these indigenous fishing communities continue to pass down their socio-ecological knowledge orally to the next generations and teach the younger generations ethical principles relating to

¹⁰⁵⁴ Pozzo 2020 *Laws* 3.

¹⁰⁵⁵ Brown *Who owns native culture?* 8.

¹⁰⁵⁶ UN, *CBD: Member States* (CBD 1992).

¹⁰⁵⁷ De Castro, Hogenboom and Baud (eds) *Environmental Governance in Latin America* 94.

¹⁰⁵⁸ Sandoval-Rivera 2019 *Southern African Journal of Environmental Education* 2; "Achaneh is a woman who owns all the bodies of water in the community. She takes care of the water and is therefore also the owner of all the creatures that live in the water." Crocodiles are some of these creatures and according to the legend the more crocodiles there are, the better the community has treated the environment and natural resources.

coexistence and respectful use of natural resources.¹⁰⁵⁹ Unlike in the case of the Aboriginal Australians, less emphasis is placed on sacred and secret knowledge.

Another bilateral international instrument – the agreement between the European Community and the United Mexican States on the mutual recognition and protection of designations for spirit drinks – is the most important instrument to protect Mexico's IKS and related export market.¹⁰⁶⁰ With the signing and compliance with this instrument, Mexico recognises the international playing field in which the country is required to protect and promote its IKS in the best interest of its people, including IPLC.

4.5 Republic of Namibia – A brief excursus

4.5.1 Introduction

The Republic of Namibia (hereafter Namibia) is a former German colony that gained independence from South Africa's administration via the UN in 1990. Geographically, Namibia shares land borders with South Africa to the south and south-east. This thesis cannot ignore Namibia's shared history with South Africa, and although a comprehensive legal review will not be undertaken, some matters related to IKS are analysed. These matters are the influence of land on IKS, a regional approach towards IKS, and the related *Swakopmund Protocol*.¹⁰⁶¹

At the 2013 British Council's 'Going Global Conference',¹⁰⁶² some authors¹⁰⁶³ expressed concerns regarding the threats facing IKS in Africa. First, the verbal nature of passing IK on from one generation to the next can result in its disappearance. The elderly may find it increasingly difficult to express their beliefs and practices to the scientifically educated youth, and once the older generation

¹⁰⁵⁹ Sandoval-Rivera 2019 *Southern African Journal of Environmental Education* 3-5.

¹⁰⁶⁰ Agreement between the European Community and the United Mexican States on the mutual recognition and protection of designations for spirit drinks L 152/16, 1997 (1997).

¹⁰⁶¹ See para 3.5.6 where some of these matters were also discussed.

¹⁰⁶² The conference was held on 4-6 March 2013 in Dubai, UAE.

¹⁰⁶³ Mohamedbhai 'Indigenous knowledge must be harvested for development' <<http://www.universityworldnews.com/article.php?story=2013030712115748> > accessed 29 August 2015.

dies, the knowledge disappears. There is also reluctance and denial from the youth and the educated to take on this calling and have the knowledge passed on to them. Second, the rapid adoption of global economic, cultural, and political practices puts pressure on the survival of IKS.¹⁰⁶⁴ Although most IKS in Africa can be codified within the Western paradigm, this is often regarded as resulting in their being understood outside of their traditional context, so IPLCs are reluctant to grant permission for such endeavours.

An international-representative research group on intangible cultural heritage (hereafter ICH) in Namibia, led by a prominent local researcher, Winschiers-Theophilus, arguably understands this dilemma best. Winschiers-Theophilus's team developed a 7C model¹⁰⁶⁵ and utilises a tripartite digitisation model¹⁰⁶⁶ to bridge the divide between the verbal and tangible passing of ICH. Their approach entails the utilisation of digitisation technologies to capture ICH within local communities (notably the OvaHimba and OvaHerero communities), with amazing results. This is done within the reality that widespread rural-urban migration disables contemporary IPLCs from disseminating, transferring and sustaining their ways of living.¹⁰⁶⁷ The authors are also adamant about community inclusion being "vital for a more truthful and respectful process".¹⁰⁶⁸ Of direct relevance to this thesis is how this research group perceives ownership, which is "the most important point underlying digitisation is coconstruction – of knowledge and technology alike".¹⁰⁶⁹ Their views are enlightening, but require further legal scrutiny if their model is to be applied in formal digital libraries, a topic that is already supported in India¹⁰⁷⁰ and investigated in South Africa.¹⁰⁷¹ With Winschiers-Theophilus's initiatives in mind, and as a country with a tiny population, Namibia has fared remarkably well on the international IKS

¹⁰⁶⁴ Mohamedbhai, 'Indigenous knowledge must be harvested for development'.

¹⁰⁶⁵ Maasz *et al* *A Digital Indigenous Knowledge Preservation Framework: The 7C Model—Repositioning IK Holders in the Digitization of IK* 9. The building blocks of the 7C model are codesign, conceptualization, collection, correction, curations, circulation, and creation. This 7C model is illustrated in figure 5 of the cited book.

¹⁰⁶⁶ Rodil and Winschiers-Theophilus 2018 *International Journal of Intangible Heritage* 145.

¹⁰⁶⁷ Rodil and Winschiers-Theophilus 2018 *International Journal of Intangible Heritage* 144.

¹⁰⁶⁸ Rodil and Winschiers-Theophilus 2018 *International Journal of Intangible Heritage* 144-145.

¹⁰⁶⁹ Rodil and Winschiers-Theophilus 2018 *International Journal of Intangible Heritage* 146.

¹⁰⁷⁰ See para 4.3.3.

¹⁰⁷¹ See para 5.13.

landscape. Namibia is a signatory to various international IKS and IP instruments, such as the *TRIPS Agreement*, the *DRIP*, the *CBD*, the *Nagoya Protocol* and the *Swakopmund Protocol*.¹⁰⁷² The country also recently enacted two pieces of legislation to promote the protection of IP, TK, TCE, and GR, namely the *Industrial Property Act*¹⁰⁷³ and the *Access to Biological and Genetic Resources and Associated Traditional Knowledge Act (BGR&TK Act)*.¹⁰⁷⁴ Jacobs points out that Namibia has arguably gone too far with the inclusion of TK as prior art and that this provision is not in line with the *TRIPS Agreement*.¹⁰⁷⁵ She suggests that TK should be excluded and that the disclosure requirement for TK and GR should be strengthened.¹⁰⁷⁶ She says this because it serves no purpose to embrace international IP regimes, as opposed to adapting a *sui generis* approach, merely to enact requirements for novelty that are not aligned with international law instruments to which Namibia is a signatory.

The establishment of the borders of Namibia as recognised today has a unique history. On the north-eastern border, the Caprivi Strip was acquired by Germany from the British in exchange for Zanzibar, an island on the east coast of Africa, to open a trade route to the east of Africa. On the south-eastern border, the Kalahari Desert and Orange River provided natural borders between Namibia and its two south-eastern neighbours, South Africa and Botswana, where the Kgalagadi Trans-frontier Park is today located. From a historical perspective, these borders played a significant role in limiting the nomadic nature of the OvaHimba and OvaHerero people in the north and the San people in the south of Namibia. Their nomadic existence means that these borders are seasonally traversed in searching for food and survival. In the case of the San community, the rainfall determined the trek between South Africa, Botswana, and Namibia (and even Angola), taking with them

¹⁰⁷² Jacobs *Patents of traditional medicine inventions and their relationship with traditional knowledge associated with genetic resources in Namibia: Proposals for legal reform* 66-67; Also see WIPO, *Namibia: Country Information* (WIPO 2020); Also see Table C-1.

¹⁰⁷³ *Industrial Property Act (Nam)* 1 of 2012.

¹⁰⁷⁴ *Access to Biological and Genetic Resources and Associated Traditional Knowledge Act (Nam)* 2 of 2017.

¹⁰⁷⁵ Jacobs *Patents of traditional medicine inventions and their relationship with traditional knowledge associated with genetic resources in Namibia: Proposals for legal reform* 67.

¹⁰⁷⁶ Sections 12(1)(c) and 17(1)(i) of the Namibian *Industrial Property Act (Nam)*.

their knowledge regarding food, medicinal plants (such as the hoodia plant), and animals. This knowledge was transferred from one generation to the next through storytelling or sacred ceremonies. Note that a similar cross-border situation, which falls outside the scope of this thesis, is found on the northern border of South Africa, namely the ancient Kingdom of Mapungubwe.¹⁰⁷⁷

Within this geographical context, Nkomo's plea for a regional approach to IKS in the Southern Africa Development Community (hereafter SADC), an internationally recognised trading block, has merit. For example, many PGR, such as the hoodia plant, are endemic to many SADC countries. Given the nomadic nature of the indigenous peoples mentioned, it would be impossible to determine the origins of TK, let alone its ownership. Moreover, to reconcile these IKS challenges with the Western IP paradigm will be even more difficult. With this in mind it is easy to comprehend why Namibia is a proponent of the *Swakopmund Protocol*, which will now be briefly discussed.

4.5.2 *Swakopmund Protocol*

The *Swakopmund Protocol* is an ARIPO attempt to consolidate IKS strategies in Africa and protect TK and TCE rightsholders from infringement of their rights.¹⁰⁷⁸ Nkomo argues that one of the reasons why the *Swakopmund Protocol* is only signed by nine of the eighteen English speaking member states of ARIPO (South Africa did not sign) is the geo-lingo-cultural differences between these countries. She also says that SADC's instruments are better suited to address IKS, also pointing out that the African Union's (hereafter AU) continental approach throughout a continent as vast and diverse as Africa, is completely unrealistic.¹⁰⁷⁹ She is correct that substantive harmonisation of IKS and IP regimes by means of SADC instruments will increase predictability and legal certainty among member states and optimise

¹⁰⁷⁷ The ancient Kingdom of Mapungubwe was located on the shared borders of Botswana, South Africa and Zimbabwe. The ancient people of Mapungubwe did not only trade in ivory, gold, beads and minerals, but they also had the ability to weave cotton, work the land and work metals of which the golden rhinoceroses are testimony.

¹⁰⁷⁸ See para 3.5.6 where this protocol is discussed in more detail.

¹⁰⁷⁹ Nkomo 2014 *Law, Democracy and Development* 330.

scarce IP expertise, resulting in stronger and more expansive IP rights with a corresponding narrowing of cultural limitations and exceptions in respect of IKS.¹⁰⁸⁰

The *Swakopmund Protocol* provides for joint ownership of IKS by indigenous or local communities and recognised individuals within such communities.¹⁰⁸¹ Joint ownership by IPLC and individuals has been criticised by many authors and has even been rejected in certain jurisdictions.¹⁰⁸² Nwauche sees the dilemma in this predicament, which is one of the reasons why South Africa is not a signatory to the *Swakopmund Protocol*. He argues that the definition of indigenous or local communities appears to refer to ethnic communities which are organised based on sanguinity, while communities can also be "organized around other social factors such as religion and language in a way that they could qualify as 'local' and 'traditional'".¹⁰⁸³ He also points out that to recognise communities as owners of TK and TCE, states will have to make substantial Constitutional amendments. This point resonates well with authors such as Raath, who has also raised his concern about recognising communities as juristic persons.

4.5.3 Land and biodiversity

Even though Namibia is primarily a desert, it has many PGR that are used by IPLC, notably the marula tree which is endemic to the whole SADC region – or in the context of this thesis, is in the public domain. WIPO commends Namibia for the way it derives benefits from its GR, as well as its ability to utilise the patent system to protect national interests. At the same time, IPLC are given the opportunity to create sustainable business in partnership with international companies, so tapping into the international market for its natural, environmentally friendly, botanical ingredients for cosmetics. In this regard WIPO refers to the proprietary process to

¹⁰⁸⁰ Nkomo 2014 *Law, Democracy and Development* 333.

¹⁰⁸¹ Section 6 of the *Swakopmund Protocol (2010)*. "S 6. The owners of the rights shall be the holders of traditional knowledge, namely the indigenous or local communities, and recognized individuals within such communities, who create, preserve and transmit knowledge in a traditional and intergenerational context in accordance with the provisions of section 4".

¹⁰⁸² See the discussion of the Australian *Bulun Bulun* case in para 4.2.6.

¹⁰⁸³ Nwauche 2014 *J World Intellect Prop* 193.

extract maruline from marula, a process co-developed by a French company and a local community, the Eudafano Women's Cooperative.¹⁰⁸⁴

Munzer and Simon conducted a comprehensive legal review of the Namibian IKS landscape, specifically of the San people and the hoodia plant. Having insight into many IKS scholars' approaches to the legal issues at hand, they are correct to warn against "the serpent's calling [IKS advocates] attention to the apple [IP regime]",¹⁰⁸⁵ as the main reason why hoodia has failed to successfully enter the marketplace. They do not say this lightly because a multidisciplinary¹⁰⁸⁶ approach was followed to review this matter. In this regard, clear evidence is available that hoodia failed the techno-economic analysis pharmaceutical companies conduct prior to investing in the commercialisation of new compounds.¹⁰⁸⁷ The authors instead argue that because the systems of land tenure differ across the four nations where the San live, local conditions are diverse and variable, and the San are not in the same linguistic, socio-economic, and political situation in these four countries. One cannot oversimplify matters – "territory, land use, regional biodiversity, and IP rights in the case of an indigenous people"¹⁰⁸⁸ must all be linked to appreciate the intimate intricacies of IKS.

The authors then offer a very useful hypothesis: there are close legal connections between land, land ownership, servitudes, IP, and biodiversity that eventually yield legally enforceable IP rights for IKS. However, under both current international law and domestic law, it is clear that "the San lack ownership of lands over which they have traditionally roamed, foraged, herded, or farmed. At most, the San have some rights to use the land".¹⁰⁸⁹ Therefore, according to the authors, the hypothesis is not that easy to validate. Four questions are then posed by Munzer and Simon, and legal solutions proposed.

¹⁰⁸⁴ WIPO *A tree and TK: A recipe for development* 2-5.

¹⁰⁸⁵ Munzer and Simon 2009 *Wm & Mary Bill Rts J* 835; Simon, the co-author is a chemical engineer.

¹⁰⁸⁶ Munzer and Simon 2009 *Wm & Mary Bill Rts J* fn 1.

¹⁰⁸⁷ Munzer and Simon 2009 *Wm & Mary Bill Rts J* 834.

¹⁰⁸⁸ Munzer and Simon 2009 *Wm & Mary Bill Rts J* 834.

¹⁰⁸⁹ Munzer and Simon 2009 *Wm & Mary Bill Rts J* 883.

The first question is do land-use rights give rise to IP rights involving regional biodiversity or at least to personal property rights regarding native plants?¹⁰⁹⁰ There is no 'yes or no' answer to this question, mainly due to the four jurisdictions within which the San have traditionally roamed, and the authors instead propose compliance with the *CBD*. This view correlates with the decision in the Australian *Ward* case where Aboriginal Australians' native title was considered.¹⁰⁹¹

The second question is, apart from the personal property rights, do indigenous peoples have any legal rights in the biodiversity of the regions in which they live?¹⁰⁹² Here the answer is yes, because all four countries are member states of the *CBD*. However, unless national legislation is in place to give effect to the objectives of the *CBD*, it will be difficult for the San people to enforce their rights.¹⁰⁹³

Third, if servitudes and personal property in regional biodiversity give rise to any IP rights in TK, to what extent may governments regulate or circumscribe these rights?¹⁰⁹⁴ No right is absolute, and governments indeed have the right to regulate property rights. Here the authors promote an environment that creates respect, preserves and promotes the knowledge, innovations, and practices of IPLC. Therefore, support for traditional lifestyles relevant to conservation and sustainable biological diversity use is acceptable.

Fourth, insofar as the San have TK rights concerning hoodia, what legal rules govern the apportioning of the commercial benefits of a new drug between the San and pharmaceutical companies?¹⁰⁹⁵ The authors are correct that the actual financial benefits to be shared are much lower than those that might have been available for sharing. This point is crucial in the IKS discourse in that other benefit sharing options should be considered, which may include the facilitation of the respectful access to

¹⁰⁹⁰ Munzer and Simon 2009 *Wm & Mary Bill Rts J* 883.

¹⁰⁹¹ See para 4.2.5 where native title rights in Australia is discussed.

¹⁰⁹² Munzer and Simon 2009 *Wm & Mary Bill Rts J* 884.

¹⁰⁹³ South Africa has already put the necessary legislation in place (*Biodiversity Act*); Namibia has enacted the *BGR&TK Act (Nam)*, but it is not yet in force; Botswana and Angola do not yet have legislation in place to comply with the *CBD*.

¹⁰⁹⁴ Munzer and Simon 2009 *Wm & Mary Bill Rts J* 886.

¹⁰⁹⁵ Munzer and Simon 2009 *Wm & Mary Bill Rts J* 888.

the land formerly roamed by the San, which is arguably of greater value to the San communities, as is also evident from projects such as Na'anKusê.¹⁰⁹⁶

This remark about alternatives to access to IKS and benefit sharing correlates with the research findings of Low, an anthropologist. During his research, he spent considerable time with Nama and Damara Khoisan. He recorded many incidents of how traditional and Western cultures and medicine are used interchangeably. Urbanised traditional healers, particularly in Windhoek and Walvis Bay, were far more receptive to Eurocentric biomedical cures.¹⁰⁹⁷ He also points out that the younger generation is now exposed to commercially available products such as cigarettes and liquor, which destabilise traditional communities. He also remarks that the land the Khoisan communities used to traverse was always under threat – not only because of the severe climate of the Namibian desert but also because of other, stronger indigenous tribes such as the Ovambo Herero people. Land tenure for the Khoisan is, therefore, not a Western problem but has been part of their reality for as long as they have existed.

4.5.4 Concluding remarks on Namibia

In conclusion, Namibia must be analysed within the context of the nomadic existence of IPLCs in the world's oldest desert. First, the reality of the Namibian desert forces one to appreciate that ownership and land tenure matters more as scarcity increases and people start to compete for the same resource, as was pointed out by Heller and Salzman.¹⁰⁹⁸ Therefore, in Namibia land tenure per se is not the legal problem in the IKS discourse; the problem is rather the responsible access to GR in a country with limited natural resources. Second, benefit sharing should also not be measured in monetary terms, but rather in how the OvaHimba, OvaHerero, Sesfontein and Na'anKusê communities, for example, are integrated into Western cultures and without compromising their cultural life, as was advocated by Winschiers-Theophilus et al.

¹⁰⁹⁶ See <https://naankuse.com> .

¹⁰⁹⁷ Low *Khoisan Healing: Understandings, Ideas and Practices* 238.

¹⁰⁹⁸ Heller and Salzman *Mine! : how the hidden rules of ownership control our lives* 244.

4.6 The Republic of Mali – A brief excursus to Islamic law and IKS

4.6.1 Overview of Islamic law

The Republic of Mali's (hereafter Mali) rich ancient and Islamic history cannot be ignored in this thesis where an African perspective on IKS is promoted. Furthermore, although a comprehensive legal review will not be conducted, some matters related to IKS and land tenure are highlighted. Unfortunately, very few studies on IP and IKS extend to Saharan countries and Muslim law, due, in the main, to language barriers.

Mali, a land-locked country in North-West Africa, is a former French colony that gained independence from France in 1960. Although Mali is predominantly a civil-law country because of the French, its 94 per cent Muslim population continues to practise *Shari'a* (Islamic law), with the *Maliki rite* (i.e. a school of thought) the dominant reader of Islamic jurisprudence in the country.¹⁰⁹⁹ David points out that in the Muslim civilisation, the Koran is, and unquestionably remains, the main source of Islamic law.¹¹⁰⁰ Therefore, although different *rites* are permitted under Islamic law, all these rites are subordinate to the Koran.¹¹⁰¹ The *Maliki rite*,¹¹⁰² founded by Imam Malik of Medina of North and West Africa, is important to this research.

Although Mali was not part of the recent WIPO study on copyright in Arab countries,¹¹⁰³ the report pointed out that many of its neighbouring countries, Algeria for example, are party to the *Berne Convention*¹¹⁰⁴ and have successfully incorporated enabling provisions in their legislation.¹¹⁰⁵ The report concluded that:

Despite the legislative success, it would appear that both here and elsewhere, the practical results are scant or even non-existent. To our knowledge, there is no systematic study with verifiable statistics making it possible to arrive at a well-

¹⁰⁹⁹ Elmahjub "An Islamic Perspective on the Theories of Intellectual Property" 51.

¹¹⁰⁰ David and Brierley *Major legal systems in the world today* 457.

¹¹⁰¹ David and Brierley *Major legal systems in the world today* 459.

¹¹⁰² David and Brierley *Major legal systems in the world today* 459.

¹¹⁰³ WIPO IGC *WIPO study on limitations and exceptions for copyright for educational purposes in the Arab countries* 12.

¹¹⁰⁴ WIPO IGC *WIPO IGC Study on Copyright in Arab Countries* 9.

¹¹⁰⁵ WIPO IGC *WIPO IGC Study on Copyright in Arab Countries* 6.

informed judgment on the real impact of efforts to incorporate the Appendix in the legislation of the Arab countries.¹¹⁰⁶

Elmahjub managed to distil Islamic law's perspective on IP. First, *mulk* (property) is recognised under *Shari'a* and includes tangible and intangible assets (including copyright, patents, and trademarks). On copyright, the *Shari'a* position is clear that ideas and subject matter contradicting injunctions in the *Shari'a* or immoral, such as pornography, are not protectable. On patents, the *Shari'a* position is that GMOs and the human body or parts of the human body, or products and processes that promote gambling, are not patentable. On trademarks, the *Shari'a* position is that because the trading of certain products and services such as alcoholic beverages, pork, and casinos are prohibited, so are trademarks for these products.¹¹⁰⁷ These exclusions and limitations to IP protection under *Shari'a* come as no surprise as most international law instruments dealing with IP inherently prohibit *droit moral*, be it personal, or of communal interest. Royalties are also frowned upon since *Shari'a* prohibits *gharar* (uncertainty) in trade and commerce, and because royalties are in lieu of that which is "yet to be quantified and earned",¹¹⁰⁸ monetary consideration that will be paid to the author at the time of concluding a licencing agreement is seen as *gharar* (speculation).

Second, *Shari'a* allows individuals to own land and deals with other property very much in the same way as the Lockean idea of the fruits of man's labour. However, property and ownership of mental labour were a topic of debate among Islam scholars but appears to have been settled.¹¹⁰⁹

Elmahjub proceeds to point out that the sources of *Shari'a* support the general framework of theories of fairness, utilitarianism, and personality which developed countries apply in IP theories, and that it also allows for limitations to and exceptions on the scope and breadth of IP rights in favour of societal interests. He alludes to four normative principles in *Shari'a* that promote fairness and the overall public

¹¹⁰⁶ WIPO IGC *WIPO IGC Study on Copyright in Arab Countries* 57.

¹¹⁰⁷ Elmahjub "An Islamic Perspective on the Theories of Intellectual Property" 57-58, 62.

¹¹⁰⁸ Elmahjub "An Islamic Perspective on the Theories of Intellectual Property" 62.

¹¹⁰⁹ Elmahjub "An Islamic Perspective on the Theories of Intellectual Property" 64.

interest. These are: *Khilafah* (stewardship); *Tadawu* (non-concentration of wealth); the doctrine of the abuse of rights; and encouragement of the dissemination of knowledge.¹¹¹⁰ Of these principles, *Khilafah* is arguably the equivalent of the protection of the public domain by stewards (IP property owners) entrusted by *Shari'a* to protect and expand the public domain of ideas and expressions, or as one prophet has said:

The best of charity is when a Muslim man gains knowledge, then he teaches it to his Muslim brother.¹¹¹¹

The importance of protecting culturally significant sites by UNESCO has already been discussed. When these sites include symbols of religion, for example, *kramats* (Muslim graves), such sites become even more significant. This was the case in the South African *Oudekraal* case, where it was held that the *kramats* are important cultural symbols in the Muslim community dating back to the era of slavery, and that commercial development of land could therefore not proceed on that land.¹¹¹² Based on this case, Nwauche argues that the right of ownership in TK and TCE is not limited to IPLC, blood ancestry, or racial origin, but that religious communities should be recognised as capable of owning TCE.¹¹¹³ Although the right of ownership by IPLC is not necessarily supported in this thesis, the normative principle of *khilafah* can be supported to allow communities to protect TK and TCE. This view correlates with Helfer and Austin's supportive arguments regarding the stewardship of TK and TCE and land by Aboriginal Australians.¹¹¹⁴

¹¹¹⁰ Elmahjub "An Islamic Perspective on the Theories of Intellectual Property" 75-80.

¹¹¹¹ Elmahjub "An Islamic Perspective on the Theories of Intellectual Property" 79.

¹¹¹² *Oudekraal Estates (Pty) Ltd v The City of Cape Town* 2009 ZASCA 85 (SCA) para 14 (*Oudekraal* case).

¹¹¹³ Nwauche *The Protection of Traditional Cultural Expressions in Africa* 133.

¹¹¹⁴ See para 4.2.5.

4.6.2 Timbuktu manuscripts

The famous Timbuktu manuscripts in Mali represent a turning point in the history of Africa and its people¹¹¹⁵ – note that the Timbuktu manuscripts from the 13th century are in the public domain and that Rens reminds us that

the public domain is important because it is an accessible, usable collection of the historical, scientific, technological and cultural works of a society. Having access to works like these fosters learning, innovation and the development of new works and encourages creativity.¹¹¹⁶

The Timbuktu manuscripts were carefully selected as a focal point because they contain ancient manuscripts about art, medicine, philosophy, and science and are in the African public domain. Timbuktu, founded in 1100 and situated at a propitious site near the Niger River, was on the main trading route between West Africa (gold and precious metals) and Europe and the East (salt, ceramics, textiles, spices). After the sea routes around Africa were discovered, the land-locked Mali slid into isolation.¹¹¹⁷ There are many examples of international efforts to preserve, digitise and translate the Timbuktu manuscripts with the sole aim to enrich the public domain. Notably, Mr Thabo Mbeki, a former President of South Africa, established an archive to house these manuscripts at the Ahmed Baba Institute of Higher Islamic Studies in Timbuktu.

Many of these archives were destroyed by Islamic fundamentalist rebels, some as recently as 2013, despite the site being declared a UNESCO World Heritage site.¹¹¹⁸ The destruction of cultural heritage is regarded by many as a criminal offence, hence the hearings of the case of Ahmad Al Faqi Al Mahdi before the International Criminal

¹¹¹⁵ Fernana *Qissat Dhul-Qurnain: Tale of the two-horned one: A book of the tale of Alexander the Great, his travels, battles and conquests* xii; Apart from the translation of an important work by Fernana, other recent publications by the Madina Institute on IKS in Timbuktu, Mali, are quality research sources on IKS in Africa.

¹¹¹⁶ Rens *Report on the South African Open Copyright Review*.

¹¹¹⁷ Motsi 2017 *Journal of the South African Society of Archivists* 1-3; Timbuktu is situated at the Niger River's far reach of its horseshoe like shape, in the Sahara. The Niger River's source is in the Guinea Highlands and the river is discharging through a massive delta in Nigeria – in other words, the river flows into and out of the Sahara. This geographical site is also the starting point from where trade routes North to the Mediterranean, or East to Egypt commenced. South, along the Niger River, access was gained to West African countries where gold was mined.

¹¹¹⁸ UNESCO, *Timbuktu - UNESCO World Heritage Site* (UNESCO 1988).

Court (ICC)¹¹¹⁹ in The Hague for alleged war crimes and the destruction of historical monuments and buildings of religious significance, including nine mausoleums and a mosque at the UNESCO World Heritage site of Timbuktu (Mali) in 2012.¹¹²⁰ Mahdi pleaded guilty and was sentenced to nine years imprisonment after the court said that "the destruction of cultural heritage erases part of the heritage of all humankind", causing harm to the international community.¹¹²¹ The looting of artefacts and objects representing cultural heritage is not unique to Mali – war has become the worst threat to archives and other cultural heritage.¹¹²² In this regard, some legal scholars rightfully remark that this ICC case, although not binding to other jurisdictions, will in the future set a necessary and welcome precedent on how to establish a legal link between cultural heritage, the public domain and human rights from an international law perspective.¹¹²³ Another commentator points out that the eventual repatriation order was insulting and insufficient and that irreparable harm was done to the people of Timbuktu. They nowadays rely on tourists to make a living,¹¹²⁴ which supports the view held in this thesis that in many cases, IKS can best be protected through tourism-driven museums, archives, and cultural heritage sites.

One translated manuscript of Timbuktu is the Magical Sudoku, dating from the 18th century, as depicted in Figure 4.11 below. The manuscript deals with the interpretation of the sudoku, ranging from its folkloric magic and superstitious beliefs to topics such as teaching mathematics.¹¹²⁵ The hypothetical question is now posed: Can the Islamic world appropriate the Arabic numeral system as part of its ancient cultural heritage? There is historical evidence that this numeral system, originating in the Eastern Islamic countries and improved upon by India with the

¹¹¹⁹ The ICC derives its mandate from the International Criminal Court Statute (the Rome Statute, 1998); In 2017, South Africa withdrew from this international instrument.

¹¹²⁰ UNESCO, *UNESCO Director-General welcomes opening of trial on the destruction of heritage in Timbuktu* (UNESCO 2016)

¹¹²¹ *The Prosecutor v Ahmad Al Faqi Al Mahdi (ICC)* ICC-01/12-01/15 (2015) paras 1 and 53 (*Ahmad Al Faqi Al Mahdi case*).

¹¹²² Motsi 2017 *Journal of the South African Society of Archivists* 2.

¹¹²³ Vrdoljak 2017 *American Society of International Law* 19.

¹¹²⁴ Lessing 2017 *Dedman School of Law Research Paper, SMU* 6.

¹¹²⁵ Sukdaven, Fernana and Mukhtar *African written intellectual heritage* 117-127; Arabic numbers were developed by Islamic countries (save for "0" that was later added by India).

addition of zero ('0'), found its way via Egypt, Mali and Morocco, over the Mediterranean to the desk of the famous Italian mathematical scholar, Fibonacci who introduced this numeral system to Europe. These manuscripts were written using iron gall inks and paper, of which both were imported from Italy,¹¹²⁶ leading to the reciprocal question as to Italy's IP rights in and to the iron gall inks and paper of which the home-made recipes were known since the ancient Roman empire.

د	ط	ب
ج	•	ز
ح	ا	و

4	9	2
3	5	7
8	1	6

Figure 4.11: Islamic magic sudoku¹¹²⁷

Another example of Islamic knowledge relates to a book on medicinal practices brought to Africa, citing multiple plants and cures.¹¹²⁸

The tale of Alexander the Great (known as Dhul Qurnain in Islamic countries), of which the original manuscript, written in 1157 of *Hejra AH*,¹¹²⁹ is also archived in Timbuktu,¹¹³⁰ concludes this excursion to Mali. According to the translator, this tale emphasises how knowledge was orally transferred to the next generations and how the Greek and Islamic versions of Alexander's territorial conquests differ, mainly due to subjective perceptions of history at that time. Historians might also agree that

¹¹²⁶ Motsi 2017 *Journal of the South African Society of Archivists* 16. Manuscripts were originally written on parchments (untanned animal skin).

¹¹²⁷ Sukdaven, Fernana and Mukhtar *African written intellectual heritage* 123; All rows and columns add up to 15. There is only one solution for a magic sudoku to the order 3. There are magic sudokus to the orders 4, 5, 6 etc., but those all have multiple solutions.

¹¹²⁸ Mukhtar and Fernana *The book of healing diseases, both hidden and apparent in the human body : African written heritage : a 17th century Timbuktu manuscript*.

¹¹²⁹ Islamic countries refer to the years of Hejra AH, or the Common Era. The Common Era (hereafter CE) is equivalent to AD. In this case the year 1157 of Hejra AH is equivalent to the year 1736 AD.

¹¹³⁰ Fernana *Qissat Dhul-Qurnain: Tale of the two-horned one: A book of the tale of Alexander the Great, his travels, battles and conquests* xxv-xxvii.

the first enclosure movement did not originate in the UK,¹¹³¹ but Alexander the Great enclosed the Caucasus Mountain pass with infamous gates and walls. From the book, it is also fascinating to appreciate how the Islamic world always broadened the public domain by disseminating manuscripts about art, medicine, philosophy, religion and science, despite the limitations posed by the severe climate and terrain. Further research on the Islamic religion will require wisdom and without proper understanding of the religious text or its overarching theological vision, "appeals to morality can distort the principle at stake".¹¹³²

4.7 Concluding remarks on the legal analysis of selected countries

The reader's attention is again drawn to Oguamanam's hypothesis that "indigenous worldviews do not share the pre-appropriation narrative of public domain (pre-civil society) from the lens of Western social contract theory".¹¹³³ The analysis of IKS in the countries above always aimed to appreciate this, in the sense that there should be a common sense of appreciation among IP and IKS scholars alike that, due to historical developments over centuries, IP scholars tend to assume an open-access approach towards IKS, while IKS scholars tend to fence off their rights. Within this context, the following lessons were learned from other countries.

4.7.1 Australia

Australian jurisprudence developments proved to be agile enough to find the balance between legislation, common law, and customary laws of IPLCs in relation to land and ownership of IKS, to name but two examples. As a result, it was found that Australia does not need a *sui generis* system for IKS, to answer the secondary research question of this thesis.

¹¹³¹ See para 2.7.4.

¹¹³² Okediji 2022 *The Columbia Journal of Law & the Arts* 88. Okediji 2022 *The Columbia Journal of Law & the Arts*.

¹¹³³ Oguamanam 2018 *J World Intellectual Prop* 9.

4.7.2 India

India has a long history of codifying knowledge, dating back to the ancient Vedic scriptures. For example, India brought '0' to the numeral system, which is today used worldwide and the symbol most used in the public domain. This culture of transferring knowledge in a tangible format, places India well in the IKS discourse, as is evident from how they codified yogic *asanas* and use their TKDL to manage novelty claims by patent seekers worldwide.

As is the case in Australia, it was found that India does not need a *sui generis* system for IK. The reason is different, though. India's strong commercial approach towards IKS resulted in this finding, as opposed to Australia, where their jurisprudence developments led to the same conclusion.

4.7.3 Mexico

Although the analysis of Mexican IKS shed light on many IKS-related challenges, notably cultural appropriation, there is no concluding evidence that a *sui generis* system in Mexico is the most appropriate way to protect and exploit IKS. Mexico furthermore leans toward the Indian pragmatic and commercial approach towards IKS.

4.7.4 Namibia and Mali

Both these African countries deserves more research on IKS-related matters. Namibia's willingness to pursue a regional approach towards IKS and its open mind towards a possible *sui generis* solution to IKS is commendable. The pragmatic approach of Winschiers-Theophilus's multidisciplinary research group in respect of ICH has also been pointed out.

Mali's efforts to preserve ancient history by means of museums and databases should be supported by developed countries, more so because of the equity reasons raised by Oguamanam. It has also been shown that perspectives on Islamic law can only enrich the IKS discourse and that further research is required to do so.

4.7.5 *Droit moral*

Droit moral deserves special mention, because this French concept of moral rights strongly manifests in many sacred and secret aspects related to IKS in all the countries that were analysed. For example, both India and Australia were relatively late in accepting *droit moral* in their copyright regimes, and both borrowed from the French in this regard because the colonial British inherited by India and Australia did not recognise this legal doctrine. Mexico, on the other hand, relied on the *droit moral* of their culture to enforce some of their IKS rights in the fashion industry.

4.7.6 *Conclusion*

As a final observation, the countries that were analysed all aimed to appreciate international law instruments to which they are signatories, while they develop country specific IKS-related jurisprudence, although it cannot be said to be the same in each country. None of the findings pertaining to these countries could provide convincing arguments as to why a *sui generis* system for IKS can work. With the analysis of other countries' IKS concluded, South Africa's IKS landscape will now be investigated in the next chapter.

CHAPTER 5 SOUTH AFRICAN LEGISLATIVE DEVELOPMENTS IN RESPECT OF IKS

5.1 Chapter overview

A legal analysis of South African legislation in relation to IKS forms the basis of this chapter. The chapter starts by contextualising the *Constitution*, whereafter related legislation and recent Bills pertaining to IP and IKS are analysed. This analysis is done within the framework of the international law instruments that were analysed earlier and the way other countries deal with the public domain, IKS and IP.

WIPO's terminology regarding TK, TCE and GR is used to describe IKS, as opposed to South Africa's most recent legislative approach where IK (not IKS) is used in the collective sense.¹¹³⁴

Since the *Constitution* is the supreme law of South Africa, the legal questions posed are first and foremost tested against the *Constitution* and its Bill of Rights, while not losing sight of international law instruments. When specific pieces of legislation are discussed, these Acts are tested against the Bill of Rights and international law instruments. These pieces of legislation are conveniently grouped to fit into WIPO's categories of IKS, namely TK, TCE and GR. Three groups of legislation come to the fore: First, conventional copyright-, performers'-, design- and trademark legislation related to TK and TCE; second, in the main for TK and GR, the *Patents and Plant Breeders Rights' Acts*, the *Medicines and Related Substances Act* where traditional medicinal issues are dealt with, and the *Biodiversity Act* under which bioprospecting and benefit sharing are regulated; third, new legislation on IKS that has not yet been promulgated is discussed. Note that the legislation often overlaps and that the three categories above are not exclusive, and use is often made of cross-referencing.

The findings of this chapter will be used as the basis for recommendations offered to influence South Africa policy-makers and legislators in the chapter to follow.

¹¹³⁴ See para 5.10.2 where the *IK Act* is discussed.

Before we proceed, the reader's attention is drawn to the fact that the paragraphs on the *Constitution* do not aim to be an analysis of the *Constitution*. These paragraphs use the *Constitution* as a normative baseline, whereafter the principles are applied to IKS.

5.2 Constitution of the Republic of South Africa, 1996

5.2.1 Introduction

When the Dutch settlers under the leadership of Jan van Riebeeck landed in South Africa in 1652, they were met by the Khoisan indigenous people – South Africa's first inhabitants, whose presence in the country has been dated by archaeologists to millennia. A period of Dutch and British colonialism followed, during which time other IPLC were marginalised too. In the early 19th century, a Khoisan named Sarah Baartman was taken to Europe by a British doctor and paraded as an anatomical freak – the "Hottentot Venus". Her remains were returned to South Africa in 2002 and buried with honour in the Eastern Cape.¹¹³⁵ This landmark and symbolic recognition of IPLC followed in the wake of the acceptance of the *Constitution* in 1996, which inter alia recognises indigenous languages and indigenous law.¹¹³⁶ In 2004, South Africa lodged its IKS policy at WIPO,¹¹³⁷ and in 2013 it started with IKS-related legislative initiatives.¹¹³⁸ South Africa's historic background between 1652 and today makes it very difficult to address injustices of the past in respect of IKS. However, South Africa is fortunate to have a world-class *Constitution* that serves as a baseline to do so, which will be done next.

The *Constitution*¹¹³⁹ is the supreme law¹¹⁴⁰ of South Africa. Any provisions of the Acts, Bills, and customary law analysed below that are inconsistent with the *Constitution* can be declared invalid. The history, development and analysis of the *Constitution* do not form part of this thesis. However, the legal precedents that have

¹¹³⁵ de Haas 2011 *South African Journal of Bioethics and Law* 25.

¹¹³⁶ Sections 6(2) and 26(1)(b) of the *Constitution*.

¹¹³⁷ IKS Policy of South Africa in WIPO/GRTKF/IC/9/11 of 2004.

¹¹³⁸ See para 5.13.

¹¹³⁹ *Constitution*.

¹¹⁴⁰ Section 2 of the *Constitution*.

been established in respect of how section 36 (the limitations clause)¹¹⁴¹ is applied are of utmost importance. Furthermore, the influence of- and the need to consider international law instruments,¹¹⁴² such as the *UDHR*¹¹⁴³ and the *DRIP*¹¹⁴⁴ is also important and they are frequently cited to contextualise some rights entrenched in an international context and without which it will not be possible fully to comprehend the Constitutional matters related to IKS and IPLC.

The Bill of Rights of the *Constitution*¹¹⁴⁵ provides for various fundamental human rights. In summary, the following rights of direct relevance to this research on IKS and the public domain are entrenched.¹¹⁴⁶ These are equality and culture; human dignity; the rights to income, an ecologically sustainable environment, the right to health-care and cultural rights of individuals and groups and property rights. The right to own property is discussed in more detail because most genera of IKS are intangible and therefore the principles of land ownership, or other tangible property rights are not always easy to apply to intangible property rights.

Like the other human rights, these rights are not absolute in the sense that rights can be limited in terms of section 36. These sections are considered from an IKS and public domain perspective throughout this chapter, but not before section 36 is explained, and a brief overview is given of the socio-legal-economic considerations and the customary laws of South African IPLC.

5.2.2 Limitation and balancing of rights

This paragraph explains how section 36 of the Bill of Rights is applied to balance two or more of the twenty-six human rights entrenched in the *Constitution*. Thereafter the rights relevant to this thesis are analysed, and section 36, stated below, is applied to each of the selected rights.

¹¹⁴¹ See para 5.2.2.

¹¹⁴² Du Plessis and Lubbe 2021 *Constitutional Court Review* 89.

¹¹⁴³ *UDHR (1948)*.

¹¹⁴⁴ *DRIP (2007)*.

¹¹⁴⁵ Chapter 2 of the *Constitution*.

¹¹⁴⁶ See paras 5.3.1-6 where these rights are explained in more detail.

Section 36 states:

Limitation of rights. (1) The rights in the Bill of Rights may be limited only in terms of law of general application to the extent that the limitation is reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom, taking into account all relevant factors, including -

- (a) the nature of the right;
- (b) the importance of the purpose of the limitation;
- (c) the nature and extent of the limitation;
- (d) the relation between the limitation and its purpose; and
- (e) less restrictive means to achieve the purpose.

(2) Except as provided in subsection (1) or in any other provision of the Constitution, no law may limit any right entrenched in the Bill of Rights.¹¹⁴⁷

The limitations imposed by section 36 are applied by taking relevant factors into account, whereafter the *Constitution* is applied indirectly. Then the rationality test is applied, as will be explained below.

5.2.2.1 Relevant Factors

In the *Makwanyane* case¹¹⁴⁸ the constitutionality of the death sentence under section 277 of the Criminal Procedure Act 51 of 1977 was considered. Chaskalson J et al ordered that "capital punishment ... declared to be inconsistent with the [Interim] *Constitution* and, accordingly, to be invalid".¹¹⁴⁹ In arguing the case, the judges identified five factors to be considered in order to justify the "limitation [and balancing of human rights which] must be justifiable in an open and democratic society based on freedom and equality".¹¹⁵⁰ These five factors are now embedded in section 36 of the *Constitution*. Briefly, these five factors¹¹⁵¹ are:

First, the nature of the right must be considered. It was found that certain rights indeed weigh more than others. Second, the purpose of the right must be

¹¹⁴⁷ Section 36 of the *Constitution*.

¹¹⁴⁸ *S v Makwanyane and Another* 1995 (2) SACR 1 (CC) (*Makwanyane* case).

¹¹⁴⁹ *S v Makwanyane and Another* para 151.

¹¹⁵⁰ *S v Makwanyane and Another* para 103.

¹¹⁵¹ *S v Makwanyane and Another* para 104.

considered. In this regard, the restriction of a right must lead to a more Constitutional state that all reasonable citizens would welcome. Third, the nature of the limitation must be considered. Here the proportionality test¹¹⁵² is applied, in terms of which the limitation should not be more than is reasonably required. Fourth, there must be a relationship between the nature and purpose of the right. Again, the limitation should be reasonable and justifiable within the context of the proportionality test. The proportionality test, as set out in the *Bhulwana* case,¹¹⁵³ must also be considered. Fifth, less limiting alternatives to achieve the same goal must be considered.

Although the *Makwanyane* case involved the death penalty and the most fundamental human right, the right to life,¹¹⁵⁴ section 10, which protects human dignity, was also considered. Section 10 relates directly to IKS and the way IPLC expect to be treated. Section 10 and other human rights will be considered while applying section 36's five factors to establish how IKS can or cannot be protected from a Constitutional perspective.

5.2.2.2 Indirect application of the Constitution

In the *Mhlungu* case¹¹⁵⁵ the accused had been charged in a Circuit Local Division of the Supreme Court with murder and other crimes. An indictment in the Afrikaans language had been served on them. At their request, the accused were provided with an English indictment. However, the date on which the English indictment was served did not fall within the period prescribed by the *Criminal Procedure Act*.¹¹⁵⁶ The accused raised as their principal argument that their Constitutional right to a fair trial had been infringed. Of relevance to this thesis is the court's ruling on the

¹¹⁵² *S v Makwanyane and Another* para 104, footnote 130. "A proportionality test is applied to the limitation of fundamental rights by the Canadian courts, the German Federal Constitutional Court and the European Court of Human Rights. Although the approach of these Courts to proportionality is not identical, all recognise that proportionality is an essential requirement of any legitimate limitation of an entrenched right. Proportionality is also inherent in the different levels of scrutiny applied by United States courts to governmental action".

¹¹⁵³ *S v Bhulwana, S v Gwadiiso* (CCT12/95, CCT11/95) [1995] ZACC 11 9 (*Bhulwana* case).

¹¹⁵⁴ Section 11 of the *Constitution*. "11. Life. - Everyone has the right to life".

¹¹⁵⁵ *S v Mhlungu* 1995 (3) SA 391 (CC) (*Mhlungu* case).

¹¹⁵⁶ Section 217(1)(b)(ii) of the *Criminal Procedure Act* 51 of 1977.

indirect interpretation of the *Interim Constitution*. In this regard, it was held by Kentridge J that "existing laws, although they may be held in due course to be unconstitutional, *prima facie* continue to have effect until they are actually struck down".¹¹⁵⁷ Kentridge J also mentioned that "a provision which has only limited and indirect application to the fundamental rights entrenched in chapter 3 of the [Interim] Constitution"¹¹⁵⁸ does not mean that the Constitutional Court can be approached directly. In this respect Currie et al comment that:

In principle, and where possible, a legal dispute should be decided in terms of existing principles or rules or ordinary law, properly interpreted or developed with reference to the values contained in the Bill of Rights, prior to the direct interpretation of the Bill of Rights to the dispute.¹¹⁵⁹

In the *Zantsi case*¹¹⁶⁰ the 'indirect application' approach as laid down in the *Mhlungu* case was unanimously approved by the judges.¹¹⁶¹ In the judgment Chaskalson J referred to the 'salutary rule' (*heilsaamheidsreël*) used in other countries¹¹⁶², which allows the law to develop incrementally,¹¹⁶³ when he remarked that: "In view of the far-reaching implications attaching to Constitutional decisions, it is a rule which should ordinarily be adhered to by this and all other South African courts before whom Constitutional issues are raised".¹¹⁶⁴ He further held that there must be a compelling public interest which requires the reference of a case to the Constitutional Court. On this Currie et al comment that it also "informs the doctrine of justiciability, particularly the principles that courts should not decide moot cases

¹¹⁵⁷ *S v Mhlungu* para 62.

¹¹⁵⁸ *S v Mhlungu* para 82.

¹¹⁵⁹ Currie and De Waal *The Bill of Rights Handbook* 56.

¹¹⁶⁰ *Zantsi v Council of State, Ciskei* 1995 (4) SA 615 (CC) (*Zantsi case*).

¹¹⁶¹ *Zantsi v Council of State, Ciskei* para 8.

¹¹⁶² *Zantsi v Council of State, Ciskei* para 2, footnote 4, where the following cases are quoted and commented upon: *State of Rajasthan & Ors Etc Etc v Union of India Etc (India)* (1978) 1 SCR 1 (*Rajasthan case*) for the proposition that "in the field of constitutional adjudication...the Court will decide no more than needs to be decided in any particular case". See also *Law Society of Upper Canada v Skapinker (Can)* (1984) 8 CRR 193 at 214 (*Skapinker case*) where the Supreme Court of Canada held that "(t)he development of the Charter as it takes its place in our constitutional law must necessarily be a careful process. Where issues do not compel commentary on these new Charter provisions, none should be undertaken"; Also see *Borowski v Canada (Can)* (1987) 57 DLR (4th) 231 (*Borowski case*), where a similar approach was adopted by the Supreme Court of Canada to the related question of mootness.

¹¹⁶³ *Zantsi v Council of State, Ciskei* para 5.

¹¹⁶⁴ *Zantsi v Council of State, Ciskei* para 5.

or cases that are not ripe for judicial resolution",¹¹⁶⁵ and that the legislator should therefore be allowed to address a Constitutional issue before a court decides on it.

5.2.2.3 Rationality

The *Prinsloo* case,¹¹⁶⁶ where the first respondent's farmlands were damaged by a veld fire, deals with land and equality. The matter was referred to the Constitutional Court in terms of the jurisdictional provisions of the *Interim Constitution*.¹¹⁶⁷ Before referring the case back to the court *a quo*,¹¹⁶⁸ the Constitutional Court declared that "the provisions of section 84 of the Forest Act 122 of 1984 are not inconsistent with the interim Constitution".¹¹⁶⁹ Section 84 of the *Forest Act*¹¹⁷⁰ deals with responsibility for fire on land outside fire control areas and the 'presumption of negligence'.

Of importance is how the Constitutional Court developed the rationality test while weighing up equality and the right to be presumed innocent. The judges said "[i]n our view, there can be no doubt that a rational relationship is demonstrated between the purpose sought to be achieved by section 84 and the means chosen".¹¹⁷¹ Or, in the words of Currie and De Waal, a law or conduct of government will violate the equality provisions of the *Constitution* "if the differentiation does not have a legitimate purpose and if there is no rational connection between the differentiation and the purpose".¹¹⁷² The application of the rationality test in IKS-related matters will become evident when IKS Acts that are not yet in force are discussed in the latter parts of this paragraph.¹¹⁷³

¹¹⁶⁵ Currie and De Waal *The Bill of Rights Handbook* 69.

¹¹⁶⁶ *Prinsloo v Van der Linde* 1997 (3) SA 1012 (CC) (*Prinsloo* case).

¹¹⁶⁷ Section 102(1) of the *Constitution of the Republic of South Africa* 200 of 1993.

¹¹⁶⁸ *Prinsloo v Van der Linde* para 42.

¹¹⁶⁹ *Prinsloo v Van der Linde* para 42.

¹¹⁷⁰ Section 84 of the *Forest Act* 122 of 1984. "Presumption of negligence. When in any action by virtue of the provisions of this Act or the common law the question of negligence in respect of a veld, forest or mountain fire which occurred on land outside a fire control area arises, negligence is presumed until the contrary is proved".

¹¹⁷¹ *Prinsloo v Van der Linde* para 40.

¹¹⁷² Currie and De Waal *The Bill of Rights Handbook* 219.

¹¹⁷³ See para 5.13.

With this Constitutional framework in mind, selected human rights of relevance to IKS and the public domain can now be analysed. But before doing so, customary law in South Africa is discussed.

5.2.3 Customary law and the Bill of Rights

Section 39¹¹⁷⁴ and Chapter 12¹¹⁷⁵ of the *Constitution* respectively recognise customary law and the role of traditional leaders of IPLC in South Africa. Furthermore, in terms of section 211 the application of customary law can form an integral part of the interpretation of the Bill of Rights.¹¹⁷⁶ A recent example where the CC applied customary law is the *Ramuhovhi & Others v President of the Republic of South Africa & Others* case,¹¹⁷⁷ where the CC ruled against current legislation that discriminates unfairly against women in polygamous customary marriages.¹¹⁷⁸ Weeks says that this case should be used as a catalyst for true legal reform and that the case "laid the groundwork for a future in which South Africa truly has the single (amalgamated) legal system",¹¹⁷⁹ where customary and common law can both be accommodated in current legislation.

In many of South Africa's rural areas, the traditional authority comprises of a hereditary chief,¹¹⁸⁰ together with the chief's council, which consists of members

¹¹⁷⁴ Sections 39(2) and 39(3), and Chapter 12 of the *Constitution*. S39 "(2) When interpreting any legislation, and when developing the common law or customary law, every court, tribunal or forum must promote the spirit, purport and objects of the Bill of Rights. (3) The Bill of Rights does not deny the existence of any other rights or freedoms that are recognised or conferred by common law, customary law or legislation, to the extent that they are consistent with the Bill".

¹¹⁷⁵ Section 221(1) of the *Constitution*. "The institution, status and role of traditional leadership, according to customary law, are recognised, subject to the Constitution".

¹¹⁷⁶ Section 211 of the *Constitution*. "The courts must apply customary law when that law is applicable, subject to the Constitution and any legislation that specifically deals with customary law".

¹¹⁷⁷ *Ramuhovhi & Others v President of the Republic of South Africa & Others* (CCT194/16) [2017] ZACC 41; 2018 (2) BCLR 217 (CC); 2018 (2) SA 1 (CC).

¹¹⁷⁸ *Ramuhovhi & Others v President of the Republic of South Africa & Others* 1. The CC held that "section 7(1) of the Recognition of Customary Marriages Act 120 of 1998 inconsistent with the Constitution and invalid in that it discriminates unfairly against women in polygamous customary marriages".

¹¹⁷⁹ Weeks 2021 *Constitutional Court Review* 165.

¹¹⁸⁰ Myburgh and Prinsloo *Indigenous public law in KwaNdebele* 4.

from the reigning family that apply customary laws.¹¹⁸¹ Understanding these hierarchical structures and the social embeddedness thereof is crucial if one wants to reconcile the public domain and IKS. A recent example where traditional leadership and customary law in respect to GR came to the fore is the *Gongqose & Others vs Minister of Agriculture, Forestry and Fisheries & Others* case,¹¹⁸² where the appellants' customary right to fish on the shores of the Eastern Cape was weight against statutory prohibitions. The extinguishment enquiry contained in section 211(3) of the *Constitution*, namely that customary law right should be regulated or extinguished by legislation and not by way of implication"¹¹⁸³ was considered in court and later analysed by Paterson and others. They warn against the difficulty

in accurately and comprehensively scoping and expressly referring to customary law, [as well as] traditional leadership and the power they wield over land rights and potentially the allocation of natural resource rights.¹¹⁸⁴

The reader's attention is now drawn to the article by Torsen,¹¹⁸⁵ in which he, in my view correctly points out that, like Western legal systems, there are differences between the customary laws of traditional people and local communities. For this reason, he is reluctant to promote a *sui generis* system for IKS, unless it is in a hybrid format.¹¹⁸⁶ He cites examples from India, the USA, and Indonesia before commending the Philippines on their legislation in respect of IKS where

the prevalence of customary laws of the community concerned has been established as a determinant factor for management and protection of the rights conferred by the Act.¹¹⁸⁷

¹¹⁸¹ Myburgh and Prinsloo *Indigenous public law in KwaNdebele* 11; In many cases council may comprises of a private council as well as a representative council.

¹¹⁸² *Gongqose and Others v Minister of Agriculture, Forestry and Others, Gongqose and S* (1340/16, 287/17) [2018] ZASCA 87; [2018] 3 All SA 307 (SCA); 2018 (5) SA 104 (SCA); 2018 (2) SACR 367 (SCA) .

¹¹⁸³ Paterson *South African Journal of Environmental Law and Policy* 143.

¹¹⁸⁴ Paterson *South African Journal of Environmental Law and Policy* 143-144.

¹¹⁸⁵ Torsen 2006 *American Journal of Comparative Law* 178.

¹¹⁸⁶ Torsen 2006 *American Journal of Comparative Law* 181.

¹¹⁸⁷ Torsen 2006 *American Journal of Comparative Law* 180.

His conclusion is that "individual tribes' customary laws must be the basis for any overarching or international laws".¹¹⁸⁸

Concerning customary law, IKS and IP, the WIPO-IGC states that

measures for the protection of traditional knowledge against misuse and misappropriation should be based upon and support enforcement of their customary laws.¹¹⁸⁹

Regarding IPLCs' participation in various WIPO-IGC meetings, the WIPO-IGC furthermore stated that:

Indigenous peoples and local communities have frequently made the case that their customary laws and practices are in essence sui generis regimes specifically crafted for protection of their traditional knowledge.¹¹⁹⁰

The entrenchment of customary law in the *Constitution* is a critical cornerstone required to address IKS, as has been seen in Australia.¹¹⁹¹ Oguamanam argued that the acceptance of customary laws by Australian courts, albeit with initial reluctance, led to the development of jurisprudence on IKS, without which the public domain and IKS in Australia cannot be understood, and it is hoped that the same applies to South Africa.¹¹⁹² With this brief note on customary law, we will now proceed to analyse specific human rights, with section 36 metaphorically serving as the public domain of the *Constitution*.

5.3 Entrenched rights

5.3.1 Section 9: Equality and culture

Culture as a Constitutional right¹¹⁹³ was tested in the Constitutional Court in the *Pillay* case.¹¹⁹⁴ In this case, the respondent's daughter, Sunali wore a gold nose stud

¹¹⁸⁸ Torsen 2006 *American Journal of Comparative Law* 180.

¹¹⁸⁹ WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>. 1.

¹¹⁹⁰ WIPO IGC Background Brief - No 7 3.

¹¹⁹¹ See para 4.2.3.

¹¹⁹² Oguamanam 2018 *J World Intellectual Prop* 7.

¹¹⁹³ Section 9 of the *Constitution*. "S 9. Equality. – (1) Everyone is equal before the law and has the right to equal protection and benefit of the law. S 9(3). The state may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including [] culture".

¹¹⁹⁴ *MEC for Education, KwaZulu-Natal v Pillay*.

to school "in keeping with her South Indian family traditions and culture".¹¹⁹⁵ The Constitutional Court considered whether the school reasonably accommodated the scholar's culture in order to establish the fairness of the cultural practice – the "enquiry was subjective and the evidence showed that the wearing of a nose-stud was important to S[unali] as an expression of her religion and culture".¹¹⁹⁶ Having considered this, together with the narrow interpretation of an identifiable culture by the court *a quo*,¹¹⁹⁷ the Constitutional Court declared that

the decision of the school's governing body to refuse S[unali] an exemption from its code of conduct to allow her to wear a nose-stud discriminated unfairly against her.¹¹⁹⁸

This ruling is aligned with article 27 of the *ICCPR*,¹¹⁹⁹ which deals with ethnic, religious, or linguistic minorities. One can, therefore, safely assume that the use and application of TCE used by IPLC are entrenched as cultural rights in terms of the *Constitution* – "the nose-stud was not worn for fashion reasons but was inserted as part of a traditional ritual and an expression of her religious and cultural identity".¹²⁰⁰

Legal scholars will be relieved that the *Pillay* case is not an isolated case on cultural rights. In the Canadian *Lovelace* case,¹²⁰¹ Mrs Sandra Lovelace challenged equality in Canada because Canadian women who marry Indian men lose their Canadian citizenship, while the opposite is not true when Indian Canadian men marry Canadian women.¹²⁰² This has far-reaching implications, including the right to a

¹¹⁹⁵ *MEC for Education, KwaZulu-Natal v Pillay* paras 3 to 7.

¹¹⁹⁶ *MEC for Education, KwaZulu-Natal v Pillay* para 88.

¹¹⁹⁷ *MEC for Education, KwaZulu-Natal v Pillay* para 50; The Court said that "Even on the most restrictive understanding of culture, Sunali is part of the South Indian, Tamil and Hindu groups which are defined by a combination of religion, language, geographical origin, ethnicity and artistic tradition. Whether those groups operate together or separately matters not; combined or separate, they are an identifiable culture of which Sunali is a part".

¹¹⁹⁸ *MEC for Education, KwaZulu-Natal v Pillay* para 119.

¹¹⁹⁹ Article 27 of the *ICCPR* (1976). "In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language".

¹²⁰⁰ *MEC for Education, KwaZulu-Natal v Pillay* para 89.

¹²⁰¹ *Lovelace v Canada (Can)* (1985) 68 ILR 17 (*Lovelace* case).

¹²⁰² *Lovelace v Canada (Can)* para 5 of the case summary. "The *Lovelace v Canada* case challenged the practice whereof an Aboriginal (Indian) woman who marries a non-aboriginal person loses her Aboriginal (Indian) status, but when an Aboriginal (Indian) man marries a non-Aboriginal (Non-Indian) woman, he retains his status under the Indian Act".

cultural life in Indian reserves, which resulted in the Canadian Human Rights Committee reviewing the Canadian *Indian Act*.¹²⁰³

5.3.2 Section 10: Human Dignity

Section 10 provides that "everyone has inherent dignity and the right to have their dignity respected and protected".¹²⁰⁴ The undignified treatment of the Khoisan named Sarah Baartman in the 19th century¹²⁰⁵ left a scar on the Khoisan people, making it easy to comprehend why they fiercely opposed the packaging of wine that resembles a sacred and religious dance.¹²⁰⁶ This matter that is currently under public scrutiny in South Africa strongly reminds of the *Crazy Horse* case.¹²⁰⁷ In the IKS discourse, dignity relates to the respectful dealing with sacred and secret TK and TCE of IPLC. The *Oudekraal* case that was discussed elsewhere confirms this approach.¹²⁰⁸

5.3.3 Section 22: The right to exercise a profession and the right to earn income

The right to earn an income¹²⁰⁹ applies to all citizens of South Africa, be they IPLC, other citizens, corporative citizens' employees, or residents in South Africa. In Chapter 3 it became clear that IPLC worldwide embraces the commercial opportunities that emanate from IKS, be it the selling of paintings, artefacts, textiles, traditional medicine, fashion or music, or the recent trend of living museums. On rare occasions the right to earn income was waived in favour of *droit moral* of those IPLC, but then always because of justifiable sacred or secret considerations imposed by the ICs as stewards or custodians of such IKS.¹²¹⁰ The right to earn an income

¹²⁰³ *Lovelace v Canada (Can)* para 9 of the case summary.

¹²⁰⁴ Section 10 of the *Constitution*.

¹²⁰⁵ See para 5.2.1; Also see de Haas 2011 *South African Journal of Bioethics and Law* 15.

¹²⁰⁶ See para 1.1. Note that at the time of writing this paragraph the wine label was withdrawn from the market.

¹²⁰⁷ See para 3.3.2.1.1.

¹²⁰⁸ *Oudekraal Estates (Pty) Ltd v The City of Cape Town*; Also see para 4.6.1.

¹²⁰⁹ Section 22 of the *Constitution*. "Freedom of trade, occupation and profession. - Every citizen has the right to choose their trade, occupation or profession freely. The practice of a trade, occupation or profession may be regulated by law".

¹²¹⁰ See chapter 3 where various examples from Australia, India and Mexico were given.

from IKS derived resources is often tested against section 24, which is discussed below.

5.3.4 Section 24: The right to an ecologically sustainable environment

The environment is integral to a wide range of human rights, because human beings depend on the environment in which they live, which must be ecologically sustainable, safe and healthy. Therefore, the use of GR by IPLC to earn a living cannot necessarily be justified in terms of section 22, unless such use is adequately balanced against section 24¹²¹¹ that aims to ensure the ecologically sustainable use of GR. One of the main reasons for this limitation to the rights of IPLC is the fact that some GR may be on the list of endangered species (e.g. the Hoodia plant). At the same time, many active compounds can be synthesised, negating the need to remove these endangered plants from nature to earn a living.¹²¹²

5.3.5 Section 27: Healthcare services.

The *Constitution* collectively recognises health-care, food, water, and social security as a single human right.¹²¹³ These are socio-economic rights that impose a positive obligation on the state to do as much as it can to secure for all members of society a basic set of health-care conditions, the right to sufficient food and water, and arguably to develop new medicines.

The apparent reasons¹²¹⁴ for combining these rights are also the reasons why authors such as Persad have reviewed arguments for and against pharmaceutical exceptionalism. Pharmaceutical exceptionalism and the influence of the

¹²¹¹ Section 24 of the *Constitution*. "Environment. - Everyone has the right [] (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that [] (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".

¹²¹² See paras 4.3.7.2 and 4.5.1 where the hoodia case study was discussed.

¹²¹³ Section 27 of the *Constitution*. "Health care, food, water and social security. (1) Everyone has the right to have access to (a) health care services; (b) sufficient food and water; and (c) social security".

¹²¹⁴ It goes without saying that access to clean water and nutritious food directly impacts on the health- and social security of people. The scientific validation hereof is beyond the scope of this thesis.

TRIPS Agreement and its *Doha Declaration* on healthcare in South Africa, have already been discussed¹²¹⁵ and must be read together with this paragraph.

Persad argues that pharmaceutical IP rightsholders, like food and beverage companies or fashion houses, have no particular moral obligation to assist the disadvantaged. He says, "their duties are the same as those of anyone else who can help, including firms like Gucci and Coca-Cola",¹²¹⁶ and argues for empirical analysis and principled foundations, as opposed to the current kludge-like approach of pharmaceutical exceptionalism's most vehement advocates (of which the South African government is one).

It is foreseen that a Constitutional confrontation between IKS rightsholders (more specifically, TMK rightsholders such as traditional healers) and healthcare proponents is inevitable within the foreseeable future. Special wisdom will be required because the current IP regimes are not aligned with the recent *IK*-, *IPLA*-, and *Biodiversity Acts* regarding IBR and natural resources and the unsettled juristic status of IPLC. For example, how will the South African government, which fiercely opposed *TRIPS* provisions related to the protection of the pharmaceutical industry during the recent pandemic,¹²¹⁷ justify the protection of a sacred and secret compound of a traditional healer if that compound has the potential to cure an endemic disease threatening the nation? Hypothetically, the answer lies in the balancing of human rights as was explained when section 36 of the *Constitution* was discussed, but then the traditional healer will be obliged to put sacred and secret information in the public domain. This requirement to disclose information applies to the cultural rights of communities too, which are discussed in the next paragraph.

¹²¹⁵ See para 3.7.5.2.

¹²¹⁶ Persad 2019 *Yale Journal of Health Policy, Law, and Ethics* 189.

¹²¹⁷ See para 3.7.5.

5.3.6 Sections 30 and 31: cultural rights of communities

Sections 30¹²¹⁸ and 31¹²¹⁹ of the *Constitution* entrench the cultural rights of communities. However, does that mean there is a right to culture as a legal object, as Brown has asked?

Macmillan's attempt to answer this question starts with an investigation into the position on culture reflected in international law instruments. Some UN instruments¹²²⁰ affirm her point of departure, but with the caveat that the right is not in and to culture per se, but rather in the right to participate, the right to enjoy, or the collective right of communities to self-determination. This brings her to the realisation that culture manifests in tangible products or services that can be owned or controlled by the communities. This control can have an adverse impact on freedom of speech, for example, because of the potential "aggressive assertion of control over the use of material [by industry] assumed by most people to be in the intellectual commons and, thus, in the public domain".¹²²¹

Macmillan then moves to one of the core problems with which many IKS scholars grapple, namely the relation between IP and cultural property (tangible and intangible). She draws the reader's attention to a subtle but very fundamental difference in that with IP, the property claims are private, while cultural property claims are, in the main, made by states or communities. The essential features of the cultural property which such states or IPLC seek to preserve (control or own) are: First, the boundaries of the public domain in which the cultural property functions; second, beneficial access thereto; and third, how the privatisation of cultural property can be prevented. The public domain of cultural property can only

¹²¹⁸ Section 30 of the *Constitution*. "Language and culture. - Everyone has the right to use the language and to participate in the cultural life of their choice".

¹²¹⁹ Section 31 of the *Constitution*. " Cultural, religious and linguistic communities. – (1) Persons belonging to a Cultural, religious or linguistic community may not be denied the right, with other members of that community- (a) to enjoy their culture, practise their religion and use their language; and (b) to form, join and maintain cultural, religious and linguistic associations and other organs of civil society".

¹²²⁰ See para 3.8.

¹²²¹ Macmillan "Human Rights, Cultural Property and Intellectual Property: Three concepts in search of a relationship" 83.

be protected from appropriation if existing IP paradigms are mimicked, such as "the divisions between knowledge and innovation, idea and expression, and (most perplexingly) nature and culture".¹²²² With this predicament in mind, Macmillan proposes a new legal architecture for the public domain of cultural property. This architecture includes the notion of some cultural subject matter ripe for appropriation; the acknowledgement that some cultural subject matter can never be appropriated; and the notion of communal rights in and to the cultural subject matter.¹²²³ This proposed new legal architecture is included in the models proposed by Okediji and the WIPO-IGC.¹²²⁴ Furthermore, the reader is reminded of the *Pillay* case¹²²⁵ on cultural rights.

The paragraphs above on selected entrenched rights aimed to contextualise IKS from a Constitutional perspective and ascertained that TK, TCE and GR could be regarded as entrenched human rights in most cases. Since the right to own property, as a specific human right, has so much relevance to IKS, it is dealt with in a specific paragraph that follows.

5.4 Section 25: The Right to own Property

The right to own property deserves a more comprehensive discussion than the six human rights discussed in the paragraphs above. The reason for this is the role of land tenure and access to land in the IKS discourse. In this regard it is important to understand property – be it the right to own property, what constitutes property, or who is the juristic person that owns property. Section 25 of the *Constitution* is therefore one of the most important human rights from which one can attempt to understand IKS. Selected parts of section 25 reads as follows:

Property. - 25(1) No one may be deprived of property except in terms of law of general application, and no law may permit arbitrary deprivation of property.

¹²²² Macmillan "Human Rights, Cultural Property and Intellectual Property: Three concepts in search of a relationship" 91-94.

¹²²³ Macmillan "Human Rights, Cultural Property and Intellectual Property: Three concepts in search of a relationship" 95.

¹²²⁴ See table 6-1.

¹²²⁵ *MEC for Education, KwaZulu-Natal v Pillay*; Also see para 5.3.2.

25(4). For the purposes of this section [25] - (b) property is not limited to land.¹²²⁶

Before a discussion on the right to own property, one need to comprehend the term 'property rights'. More specifically, does property include land, fixed property, movable property, intangible property (incorporeal property), personal rights, goodwill, and the categories of IKS, namely GR, TCE and TK?

Currie and De Waal attempt to understand property rights by first drawing their reader's attention to various approaches to the notion of property. These include the Roman-Dutch legal tradition where the legal relationship between the owner and the tangible thing was at the heart of ownership,¹²²⁷ or traditionalists' narrow interpretation of a real right, or the Constitutional approach where a far broader and inexact term 'property' is used.¹²²⁸ Du Bois considered these and other property theories in relation to IP and IKS, with Locke's natural law arguments regarding the fruit of one's labour being the strongest justification for IP and IKS as property.¹²²⁹

Recent case law has also attempted to clarify this matter. In the following paragraphs, movable property is dealt with first, followed by IP. This allows the conversation to align the 'what-constitutes-property?' arguments with the chronological development of Constitutional case law in this regard.

From a Constitutional perspective this first enquiry on property is critical, whereafter six further questions are posed. These questions were developed in the *FNB* case.¹²³⁰ Only once it has been established whether the property at hand qualifies as Constitutional property rights does the conversation move on to whether there was

¹²²⁶ Section 25(1) of the *Constitution*.

¹²²⁷ Emmett "Roman Law, Private Property and the Public Domain: Lessons for Copyright Policy" 17; The Romans developed the concept of incorporeal property, *re communes*, *res publicae* (the public domain), *ius in rem* (usufruct), *ius in personam* (claims for debt or damages).

¹²²⁸ Currie and De Waal *The Bill of Rights Handbook* 535.

¹²²⁹ Du Bois 2018 *PER/PELJ* 30.

¹²³⁰ *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services* para 46; The seven questions are: "(a) Does that which is taken away from FNB by the operation of s 114 amount to 'property' for purpose of s 25? (b) Has there been a deprivation of such property by the Commissioner? (c) If there has, is such deprivation consistent with the provisions of s 25(1)? (d) If not, is such deprivation justified under s 36 of the Constitution? (e) If it is, does it amount to expropriation for purpose of s 25(2)? (f) If so, does the deprivation comply with the requirements of s 25(2)(a) and (b)? (g) If not, is the expropriation justified under s 36?".

a deprivation of that property (the second step). Here Van der Walt and Shay¹²³¹ argue that the wider definition of deprivation, adopted in the *FNB* case,¹²³² simply requires regulatory interference in the property's use, enjoyment, or exploitation. The authors then refer to other case law where slightly higher thresholds are set for the definition of deprivation before they revert to the *FNB* case's definition of deprivation as the more appropriate.

Once property (and ownership) and the deprivation thereof have been established, the conversation moves to whether the deprivation complies with the constitutive phrases of section 25(1) of the *Constitution* (the third step). From here on, the third step and the remaining steps will be applied individually to the respective categories of property, starting with movables.

This approach is very important in that an argument is about to develop that IKS does not require special treatment, and if the Constitutional approach as to 'what constitutes property?' is followed, the three IKS categories – TK, TCE and GR – are all comfortably taken care of in the *Constitution*. For example: A question that may arise from a IKS perspective, is how section 25 deals with IPLC who claim to own IBR,¹²³³ while the traditional leader of such community acts as steward or custodian of the IBR and the whole community uses the IBR and the fruits of the land in the meantime. The following paragraphs attempt to bring some clarity.

5.4.1 *Movables*

In the *FNB* case¹²³⁴ the Constitutional Court set out the structure of analysis of direct application of the property clause. After posing a list of seven questions and considering the arbitrariness of deprivation, the court declared that the provisions of section 114, "constitutionally invalid to the extent that they provide that goods owned by persons, other than the person liable to the State for the debts described

¹²³¹ Van Der Walt and Shay 2014 *PER/PELJ* 55.

¹²³² *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services* Para 57.

¹²³³ Note the South African use of terminology IBR, as opposed to GR.

¹²³⁴ *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services*.

in the section, are subject to a lien, detention and sale".¹²³⁵ Of importance to IKS is the confirmation that the ownership of 'movable corporeals' (e.g. cars) is seen as property in terms of section 25(4)(b) of the *Constitution*, and that the arbitrary deprivation of property (in this case as enacted in section 114) is not Constitutional – it should be 'reasonable and justifiable', as is required by section 36 of the *Constitution*.¹²³⁶

5.4.2 Intellectual property

The question whether IP is property as defined in terms of section 25 of the *Constitution* needs to be dealt with too. In the *FNB* case¹²³⁷ the court emphasised that section 25(4)(b) indicates that "property was not limited to land",¹²³⁸ implying that immovable and intangible property are arguably also protected by the *Constitution*, although the court also cautioned that it is judicially unwise to define property. 'Implying' is not good enough. Van der Walt and Shay¹²³⁹ grapple with the same question but then revert to the seven-step methodology developed in the *FNB* case. As Constitutional experts, these two authors convincingly argue that if step 1 is duly applied to IP, courts will accept that the interests in IP are indeed property interests. They argue that the Constitutional approach is to determine the function that the property at hand (IP) has in society, rather than the traditional approach.¹²⁴⁰ In this regard they also refer to the *Laugh it Off* case¹²⁴¹ where trademarks were recognised by the Constitutional Court as property.

Van der Walt and Du Bois approach IP as property from a public domain perspective. They consider the economic and incentive theories, which resonate well with other scholars such as Boyle, Hettinger, Gray, and Ghosh, who also attempt to justify IP

¹²³⁵ *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services* para 133.

¹²³⁶ *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services* para 4, headnote.

¹²³⁷ See para 5.4.1.

¹²³⁸ *First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services* paras 45 & 51.

¹²³⁹ Van Der Walt and Shay 2014 *PER/PELJ* 54.

¹²⁴⁰ Van Der Walt and Shay 2014 *PER/PELJ* 54.

¹²⁴¹ *Laugh it Off Promotions CC v South African Breweries International (Finance) BV 2006 (1) SA 144 (CC)* para 17 (*Laugh it Off* case).

as property, often referring to Locke's labour theory. For example, with information as something that resides in the public domain, producers of information must be incentivised to produce, and IP provides such limited monopoly where greater knowledge is created. This is very true in the digital age where the dissemination of information (content) is relatively easy, and where content aggregators such as Amazon and YouTube never claim copyright in and to content, but rather the right to disseminate content in the public domain – albeit at a fee. No wonder then that Heller and Salzman describes this predicament where digital content is created, as intellectual labour, where "everyone can reap if just one person has sown".¹²⁴² This concern illustrates the need for the necessary safeguards for the creators of knowledge to continue expanding the "intellectual commons with a library full of raw material",¹²⁴³ be it proprietary rights or controlling rights.

The IP position of content aggregators should also be briefly considered when it comes to raw material or information in various digital formats. First, many IP scholars and practitioners will agree that the *de facto* control of IP is in many instances more valuable than ownership. Amazon and YouTube are cases in point, where they conveniently hide behind the USA's *Digital Millennium Copyright Act*,¹²⁴⁴ to avoid the legal liabilities that accompany most forms of property rights when take-down notices are served on the IP proprietors for various reasons.¹²⁴⁵ Similarly, many licensees of patents conveniently negotiate positions where the proprietor remains responsible for patent infringement lawsuits.

Van der Walt and Du Bois also compare IP and land. Land can be depleted (or severely damaged) with only so many hectares of arable land. Hardin explains this 'tragedy' when he writes "[p]icture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons".¹²⁴⁶ When the public domain is under threat, Boyle says, no one can create out of

¹²⁴² Heller and Salzman *Mine! : how the hidden rules of ownership control our lives* 91.

¹²⁴³ Van Der Walt and Du Bois 2013 *Stellenbosch Law Review* 34.

¹²⁴⁴ *Digital Millennium Copyright Act (USA)* 1998.

¹²⁴⁵ Verhoef *The fair dealing doctrine in respect of digital books* 99.

¹²⁴⁶ See Chander and Sunder 2004 *California Law Review* 1332, where the authors refer to Hardin's logic that the men will overrun the commons with cattle, eventually destroying it.

nothing¹²⁴⁷ and Van der Walt and Du Bois then argue that the public domain cannot only be depleted, but will stagnate unless a healthy 'intellectual commons' remains intact for future uses in intellectual innovations.¹²⁴⁸ In their concluding remarks a utilitarian approach emerges when they say that it may be argued that

some intellectual products should remain in the commons or revert back to the commons in order to ensure that enough remains so that new intellectual products may be developed based on these existing products. However, there must also be enough of a property right based incentive in order to ensure continued investment in the creation of new intellectual products. The important question is then, how may these two interests be balanced?¹²⁴⁹

With these insights about IP as property the discussion moves to the specific genus of IP, namely trademarks, copyright, patents and trade secrets. This discussion is important because it is moving towards applying the same rules to TK, TCE and GR to ascertain if the three genera of IKS can be regarded as property under present legislation.

5.4.2.1 Trademarks

The first genus of IP for analysis is trademarks, starting with a discussion of the *Laugh it Off* case. Briefly, the facts of the case are that Laugh it Off is a close corporation that sells apparel such as T-shirts which allegedly misappropriate the brands and logos of well-known trademarks. One such example is the case where one of the appellant's (South African Breweries (SAB))¹²⁵⁰ well-known beer brands, 'Carling Black Label', was appropriated.¹²⁵¹

¹²⁴⁷ Boyle *The Public Domain* 134.

¹²⁴⁸ Van Der Walt and Du Bois 2013 *Stellenbosch Law Review* 36.

¹²⁴⁹ Van Der Walt and Du Bois 2013 *Stellenbosch Law Review* 54.

¹²⁵⁰ Note the complete name: "South African Breweries (SAB) International (Finance) BV t/a Sabmark International (now known as SABMiller Finance BV, (SABMiller))".

¹²⁵¹ *Laugh it Off Promotions CC v South African Breweries International (Finance) BV*, para 9.

Although the case primarily dealt with the Constitutional right of free speech,¹²⁵² more specifically with parody as a manifestation of freedom of speech¹²⁵³ on the one hand and the SAB's commercial interests and trademark dilution¹²⁵⁴ on the other, the court confirmed that trademarks have "the status...of property albeit incorporeal".¹²⁵⁵ Importantly, the court also observed that "like other property, intellectual property does not enjoy special status under the *Constitution*. It is not immune from challenge and therefore its enforcement must be Constitutionally tenable".¹²⁵⁶ In this regard the court, in essence, applied the second of the seven steps developed in the *FNB* case – to establish "whether or not there was a [regulatory] deprivation of the said property,"¹²⁵⁷ – with Van der Walt and Shay noting that in the case of IP, "the Court only assess if the use, enjoyment or exploitation of the [IP] has been diminished".¹²⁵⁸

Dean says that the consequence of the Constitutional Court's seven-step approach is the "unequivocal recognition of the right to hold IP as a fundamental right having equal status to the specified fundamental rights in the Bill of Rights".¹²⁵⁹ This, he claims, will lead to a new approach to IP prosecution – a claim that will also contribute to the recognition of the three genera of IKS as property. Many forms of TCE lend themselves to being protected by marks, and with the property aspect related to marks settled, it would be difficult to see why most forms of TCE cannot

¹²⁵² *Laugh it Off Promotions CC v South African Breweries International (Finance) BV* p1, headnote: "The applicant had appropriated the general layout and colours of the respondents' registered 'Carling Black Label' mark, but substituted the words 'Black Label' with 'Black Labour', and the words 'Carling Beer' with 'White Guilt'. In the laudatory part of the label the phrases 'America's lusty, lively beer' and 'Enjoyed by men around the world' were replaced by 'Africa's lusty, lively exploitation since 1652' and 'No regard given worldwide'".

¹²⁵³ Section 16 of the *Constitution*.

¹²⁵⁴ Section 34(1)(c) of the *Trademarks Act* 194 of 1993.

¹²⁵⁵ *Laugh it Off Promotions CC v South African Breweries International (Finance) BV* para 17, footnote 10.

¹²⁵⁶ *Laugh it Off Promotions CC v South African Breweries International (Finance) BV* para 17.

¹²⁵⁷ Van Der Walt and Shay 2014 *PER/PELJ* 55.

¹²⁵⁸ Van Der Walt and Shay 2014 *PER/PELJ* 56.

¹²⁵⁹ Dean 'Trade-mark dilution laughed off' <<http://blogs.sun.ac.za/iplaw/files/2012/08/Trade-mark-dilution.pdf>> accessed 3 August 2020 5.

be protected as trademarks, GI, or even as GCMs, as already suggested by Gervais.¹²⁶⁰

5.4.2.2 Patents

The *Laugh it Off* case dealt only with trademarks, and the property question is yet to be answered regarding patents, copyright, and the other genus of IP. Helfer¹²⁶¹ points out that recent IP developments worldwide can be divided into a) the rights of IPLC; and b) a response to the *TRIPS Agreement*, which recognises IP as private rights.¹²⁶² South Africa aligned its IP regime with the *TRIPS Agreement* as a signatory. For example, the *Patents Act* was amended in 2005¹²⁶³ to provide for the prior disclosure of the origin of IBR, indigenous genetic resources (IGR), or TK,¹²⁶⁴ failing which the patent can be revoked.

This example speaks to the observation by the court above that IP (in this case patents) does not enjoy special status and that the extent of the right can indeed be limited. This additional requirement under the *Patents Act* passes the test for constitutionality – the additional requirement merely protects the Constitutional rights of others (eg, IPLC)¹²⁶⁵ while the rights of patent owners are not diluted in any way whatsoever. As with trademarks, it seems clear that many forms of TK can be protected using the patent regime, with adequate limitations already being in place.

¹²⁶⁰ See para 3.3.2 where Gervais makes a case for GCM.

¹²⁶¹ Helfer 2004 *Yale J Int'l L* 46.

¹²⁶² Preamble of the *TRIPS Agreement* (1994). It reads as follows: "Recognizing that intellectual property rights are private rights".

¹²⁶³ *Patents Amendment Act* (2005) 20 of 2005; Also see para 5.6.

¹²⁶⁴ *Patents Amendment Act* (2005); Also see paragraphs 5.9 (on patents) & 5.10 (on biodiversity) below. Also note that the *Patents Amendment Act* is linked to the *Biodiversity Act* in that it requires that every applicant who lodges a final application for a patent, must state whether or not the claimed invention is based on or derived from an indigenous biological resource or an indigenous genetic resource, or from traditional knowledge; and if so, whether it is co-owned by the owners of the traditional knowledge.

¹²⁶⁵ Note that the constitutional rights of IPLC can include a wide range of human rights, eg sections 9, 10, 22, 24, 30 & 31, as is discussed throughout this paragraph.

5.4.2.3 Copyright

The *Copyright Act* is being revised to comply with the requirements of the *TRIPS Agreement*, as well as IKS policy considerations.¹²⁶⁶ Van der Walt and Shay¹²⁶⁷ caution that while the Constitutional approach to ownership in the *Laugh it Off* case above might have been the correct one for trademarks (and parody), it is not necessarily suitable for copyright. They point out that the exclusive nature of copyright provides the owner with the right to prohibit parodies (to prohibit freedom of speech) which will qualify as a derivative work unless a "determined parodist bringing the issue to the Constitutional Court's attention, the [*Copyright Act*] will continue to act as a deterrent to all burgeoning parody artists".¹²⁶⁸ Parody is also not a fair dealing exception as is provided for in section 12 of the *Copyright Act*, and section 20 of the same Act protects authors in that they may "object to any distortion, mutilation or other modification of the work where such action is or would be prejudicial to the honour or reputation of the author".¹²⁶⁹

Copyright as Constitutional property right has, in the meantime, been settled in the *Moneyweb* case, where the judge stated that: "Copyright is an intellectual property right. It is protected by section 25(1) of the Constitution".¹²⁷⁰ The judge also stated that copyright is not absolute and that the requirements of section 36 must always be met.¹²⁷¹ Without repeating what has been said about trademarks and patents, one can safely assume that the same applies to TK and TCE being able to find protection under the *Copyright Act*.

¹²⁶⁶ The *Copyright Act* is currently being revised with the *Copyright Amendment Bill (2018)*, as well as the *IK Act (2019)* and the *IPLA Act (2013)*.

¹²⁶⁷ Van Der Walt and Shay 2014 *PER/PELJ* 74.

¹²⁶⁸ Van Der Walt and Shay 2014 *PER/PELJ* 75, 77.

¹²⁶⁹ Section 20 of the *Copyright Act*.

¹²⁷⁰ *Moneyweb (Pty) Ltd v Media 24 Ltd and Another* para 108.

¹²⁷¹ *Moneyweb (Pty) Ltd v Media 24 Ltd and Another* para 108; The judge said that "a law of general application could therefore limit a right in terms of section 25(1), provided that the law meets the requirements of section 36 of the Constitution. It follows that the right to reproduce or publish a copyrighted work is not absolute".

5.4.2.4 Trade secrets

Strong arguments have been made over the years to include trade secrets as a genus of IP. A trade secret, unlike a patent, remains confidential, and as such, there is no direct benefit to the public as no information is made available in the public domain or information dissemination is restricted. The *TRIPS Agreement* provides for trade secrets, albeit in the context of unfair competition and not as a genus of IP. Article 39(2)¹²⁷² essentially identifies three requirements for trade secrets to be recognised: i) secrecy, ii) commercial value because of the secrecy, and iii) that reasonable steps are taken to ensure the continued protection of the information.

With trade secrets well accepted in South African law and entrenched in the *TRIPS Agreement*, there should be no reason why the protection of trade secrets cannot be extended to sacred and secret TK and TCE in South Africa. In fact, WIPO comments, with reference to Australian case law, that the common law doctrine of confidential information could be used to protect information of deep religious and cultural significance from exploitation.¹²⁷³

5.4.2.5 Goodwill

The *Phumelela* case¹²⁷⁴ deals with an application to appeal a finding on unlawful competition by the Supreme Court of Appeal.¹²⁷⁵ The original dispute was between bookkeepers and totalisators¹²⁷⁶ and their respective commercial rights and will not

¹²⁷² Article 39(2) of the *TRIPS Agreement* (1994). "Natural and legal persons shall have the possibility of preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices so long as such information: (a) is secret in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; (b) has commercial value because it is secret; and (c) has been subject to reasonable steps under the circumstances, by the person lawfully in control of the information, to keep it secret"; A 39 also makes direct reference to a 10^{bis} of the Paris Convention that relates to unfair competition.

¹²⁷³ WIPO *Consolidated analysis of the legal protection of tCE / Expressions of Folklore* 55.

¹²⁷⁴ *Phumelela Gaming and Leisure Ltd v Gründling* 2007 (6) SA 350 (CC) (*Phumelela* case).

¹²⁷⁵ *Phumelela Gaming and Leisure Ltd v Gründling* para 10.

¹²⁷⁶ *Phumelela Gaming and Leisure Ltd v Gründling* para 1; Note the distinct difference: Bookkeepers quote odds in advance. Totalisators do not fix odds in advance but pays out dividends in proportion to the amount of money wagered.

be discussed. Of interest to this thesis is the Constitutional Court's concurrence with the Supreme Court of Appeal's view that "resulting income potential is part of its goodwill and as such a valuable asset". The majority in the Supreme Court of Appeal held that Phumelela's business system constituted property.¹²⁷⁷ The Constitutional Court then posed the question, in terms of section 25 of the *Constitution*, whether there had been an arbitrary deprivation of Phumelela's property. It subsequently ruled that "the conduct of the bookmakers did not constitute unfair competition cannot be faulted".¹²⁷⁸ That being the case, it follows that the judgment of the Supreme Court of Appeal does not result in the arbitrary deprivation of Phumelela's property. As in the *FNB* case above, the Constitutional Court correctly applied the arbitrariness test to weigh up Constitutional rights – in this case, between sections 22 and 25 of the *Constitution*.

5.4.3 Personal rights

In the *Law Society* case,¹²⁷⁹ the Society, representing some 20 000 attorneys, argued that "their members and their clients are adversely affected by the impugned provisions"¹²⁸⁰ introduced by the *Road Accident Fund Amendment Act (RAF Act)*.¹²⁸¹ The attorneys argued that the loss of earning capacity by their clients (i.e. those persons protected in terms of the Road Accident Fund (RAF)) is indeed "rights with a monetary value or new property all of which the Constitutional property clause protects".¹²⁸² Of importance to this thesis is the impugned provisions in relation to sections 12 and 25 of the *Constitution* ("whether section 12(1)(c) of the Constitution applies to and protects the physical integrity of road accident victims",¹²⁸³ and if so, if the amended *RAF Act* results in the arbitrary deprivation of property in terms of section 25(1) of the *Constitution*).¹²⁸⁴ The Constitutional Court "assume[d] without deciding in favour of the applicants, that a claim for loss of earning capacity or of

¹²⁷⁷ *Phumelela Gaming and Leisure Ltd v Gründling* paras 11 & 36.

¹²⁷⁸ *Phumelela Gaming and Leisure Ltd v Gründling* para 19.

¹²⁷⁹ *Law Society of South Africa v Minister for Transport* 2011 (1) SA 400 (CC) (*Law Society* case).

¹²⁸⁰ *Law Society of South Africa v Minister for Transport* para 5.

¹²⁸¹ *Road Accident Fund Amendment Act* 19 of 2005.

¹²⁸² *Law Society of South Africa v Minister for Transport* para 81.

¹²⁸³ *Law Society of South Africa v Minister for Transport* para 10.

¹²⁸⁴ *Law Society of South Africa v Minister for Transport* para 4.

support is property"¹²⁸⁵ after which the arbitrary deprivation of property was considered.

Two years later, in the *Opperman* case,¹²⁸⁶ the arbitrary deprivation of property again came under scrutiny.¹²⁸⁷ In this case, a farmer lent money to his friend, and when the friend was unable to repay the loan, the farmer lodged an application to sequester the estate of the borrower.¹²⁸⁸ The lender was not registered as a credit provider in terms of the *National Credit Act (NC Act)*¹²⁸⁹ and so lost his right to restitution – the High Court found section 89(5)(a) to mean that "the credit agreement is void and that it bars Mr Opperman from recovering any of the money lent out, either under the agreement or on the basis of unjustified enrichment of Mr Boonzaaier".¹²⁹⁰ However, the High Court realised that this provision of the *NC Act* was "for an arbitrary deprivation of property in breach of section 25(1) of the Constitution [and] thus constitutionally invalid".¹²⁹¹ In order to engage section 25(1) the 'purported rights' of a credit provider under a credit agreement "to recover any money paid or goods delivered", referred to in section 89(5)(c), "must indeed be property within the meaning of section 25".¹²⁹²

With reference to the *FNB*, *Law Society*, and *Opperman* cases on intangible property, Currie et al remark that: "The inclusion of [goodwill and] personal rights within the term 'property' is not surprising. A person's wealth [or loss thereof] is no longer dependant on his or her ownership of land".¹²⁹³ This remark is crucial from an IKS perspective, where many IPLC connect their alleged rights to land and IBR. Hypothetically then, the matter of government largesse such as housing subsidies,

¹²⁸⁵ *Law Society of South Africa v Minister for Transport* para 84.

¹²⁸⁶ *National Credit Regulator v Opperman* 2013 (2) SA 1 (CC) (*Opperman* case).

¹²⁸⁷ *National Credit Regulator v Opperman* para 3.

¹²⁸⁸ *National Credit Regulator v Opperman* paras 1 & 2.

¹²⁸⁹ Section 89(5)(c) of the *National Credit Act* 34 of 2005.

¹²⁹⁰ *National Credit Regulator v Opperman* para 9.

¹²⁹¹ *National Credit Regulator v Opperman* para 10.

¹²⁹² *National Credit Regulator v Opperman* para 57.

¹²⁹³ Currie and De Waal *The Bill of Rights Handbook* 537.

or in the case of IKS, benefit sharing agreements, can be seen as 'property'. This matter is still to be tested in our courts.¹²⁹⁴

5.4.4 Land

The ownership of land is one of the most controversial debates in South Africa, with the public hearings¹²⁹⁵ on the possible amendment of section 25 of the *Constitution* which commenced in June 2018, as a case in point – this matter is not extensively discussed in this thesis, because it is still developing¹²⁹⁶ after the National Assembly failed to pass the Constitution Eighteenth Amendment Bill¹²⁹⁷ in late 2021.

The right to own property is aligned with articles 17 and 27 of the *UDHR* and articles 25 and 26 of the *DRIP*.¹²⁹⁸ In fact, in terms of section 39(1)(b) of the *Constitution* it mandates a court, tribunal or forum to consider international law when the Bill of Rights is considered.¹²⁹⁹ With reference to the *DRIP*, Abate et al argue that "under international human rights law, indigenous peoples bear both substantive and procedural land and resource rights".¹³⁰⁰ Their argument is also aligned with articles

¹²⁹⁴ Currie and De Waal *The Bill of Rights Handbook* 537.

¹²⁹⁵ Constitutional Review Committee on Section 25 in Parlement of 27 February 2018.

¹²⁹⁶ Currie and De Waal *The Bill of Rights Handbook* 532; The authors summarised the two opposing viewpoints, namely that opponents argue that a constitutional right to property would entrench white privilege and impede the state's ability to redress the past, while proponents argue that a constitutional right to property was essential for economic confidence, innovation, growth and international trade.

¹²⁹⁷ *Constitution Eighteenth Amendment Bill* B18-2021.

¹²⁹⁸ See articles 25 & 26 of the *DRIP (2007)*. Also see paras 2.5.1 and 2.4.1 above.

¹²⁹⁹ Du Plessis and Lubbe 2021 *Constitutional Court Review* 83.

¹³⁰⁰ Abate and Kronk (eds) *Climate change and indigenous knowledge* 57.

14¹³⁰¹ and 15¹³⁰² of the International Labour Organisation's (ILO) *Convention 169*,¹³⁰³ which specifically recognises IPLCs' substantive and procedural rights.

Substantive rights, according to Abate et al, include i) the right to legal recognition and demarcation of the land; ii) the right to ownership (with associated rights such as the use of the fruits of the land); and iii) the right to use the natural resources associated with such land.¹³⁰⁴ The authors conceded that the right to sub-surface resources (eg, minerals¹³⁰⁵ and oil) is yet to be settled and that the debate in this regard is ongoing.¹³⁰⁶

Procedural rights, again according to Abate et al, include, as a minimum, IPLCs' right to be part of a process of free, informed, prior, meaningful consultation, especially when large-scale development projects are involved. This procedural right of IPLC is indeed affirmed in article 32(2) of the *DRIP*.¹³⁰⁷

¹³⁰¹ Article 14 of International Labour Organisation's Indigenous and Tribal Peoples Convention C169 (1989). "1. The rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy shall be recognised. In addition, measures shall be taken in appropriate cases to safeguard the right of the peoples concerned to use lands not exclusively occupied by them, but to which they have traditionally had access for their subsistence and traditional activities. Particular attention shall be paid to the situation of nomadic peoples and shifting cultivators in this respect. 2. Governments shall take steps as necessary to identify the lands which the peoples concerned traditionally occupy, and to guarantee effective protection of their rights of ownership and possession. 3. Adequate procedures shall be established within the national legal system to resolve land claims by the peoples concerned".

¹³⁰² Article 15 of *ILO C169 (1989)*. "1. The rights of the peoples concerned to the natural resources pertaining to their lands shall be specially safeguarded. These rights include the right of these peoples to participate in the use, management and conservation of these resources. 2. In cases in which the State retains the ownership of mineral or sub-surface resources or rights to other resources pertaining to lands, governments shall establish or maintain procedures through which they shall consult these peoples, with a view to ascertaining whether and to what degree their interests would be prejudiced, before undertaking or permitting any programmes for the exploration or exploitation of such resources pertaining to their lands. The peoples concerned shall wherever possible participate in the benefits of such activities and shall receive fair compensation for any damages which they may sustain as a result of such activities".

¹³⁰³ ILO 1919 <https://www.ilo.org/global/lang--en/index.htm>.

¹³⁰⁴ Abate and Kronk (eds) *Climate change and indigenous knowledge* 56.

¹³⁰⁵ The *IK Act* refers to minerals; See para 5.13 where IPLCs' rights to minerals are mentioned.

¹³⁰⁶ Abate and Kronk (eds) *Climate change and indigenous knowledge* 56.

¹³⁰⁷ Article 32(2) of *DRIP (2007)*. "States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources".

Abate et al's views resonate well with those of Du Plessis who states that "present-day African indigenous land tenure is unique and struggles to fit into the common law notion of property and ownership".¹³⁰⁸ She substantiates this by referring to the *Tongoane* case¹³⁰⁹ where the Constitutional Court considered both substantial and procedural rights¹³¹⁰ and eventually ruled that the *Communal Land Rights Act*¹³¹¹ is unconstitutional. The right to property is one of the few human rights where the *Constitution* pertinently indicates what the public interest entails. Here Du Plessis refers to the commons, or common property resources (Ostrom's term)¹³¹² as the public domain that needs to be considered more closely when analysing African land tenure. She also refers to Okoth-Ogendo's understanding of the matter where he hypothetically asks, "In whom, for what purposes and for how long should an allocation of power in respect of particular aspects of land be made?"¹³¹³ This question on communal property exposes the deep divide between the common law notion of property, and the African notion of land tenure where the interest in the land is a more valuable currency. Du Plessis's attempt to classify the public domain and to balance exclusion and subtraction¹³¹⁴ bears some resemblance to the exception and limitations doctrine associated with copyright – it is indeed a possible solution to land tenure. However, it will need refinement and a common understanding among all South Africans on the nature of the public domain or the commons in the context of land tenure.¹³¹⁵

¹³⁰⁸ Du Plessis 2011 *PER/PELJ* 63.

¹³⁰⁹ *Tongoane v Minister of Agriculture and Land Affairs* 2010 6 SA 214 (CC) (*Tongoane* case).

¹³¹⁰ *Tongoane v Minister of Agriculture and Land Affairs* para 133. The court declared that the Act is "invalid in its entirety for want of compliance with the procedures set out in section 76 of the Constitution".

¹³¹¹ *Communal Land Rights Act* 11 of 2004.

¹³¹² Du Plessis 2011 *PER/PELJ* 58; Du Plessis refers to Ostrom.

¹³¹³ Du Plessis 2011 *PER/PELJ* 63.

¹³¹⁴ Du Plessis 2011 *PER/PELJ* 58; Du Plessis refers to Feeny who says, "excludability is about the control of access, while subtractability implies that the exploitation of the resource by one user affects the ability of the other users to exploit the resource".

¹³¹⁵ Section 25(4)(a) of the *Constitution*. "For the purposes of this section – (a) the public interest includes the nation's commitment to land reform, and to reforms to bring about equitable access to all South Africa's natural resources".

5.5 Traditional knowledge and traditional cultural expressions as intellectual property

Paragraph 5.3.5 above deliberately sets out to explain fully what the term property rights means. It briefly dealt with fixed property, movable property, intangible property, personal rights, land, and goodwill. It also discussed the properties that were tested against the *Constitution* and subsequently balanced with other Constitutional rights. In the process, it emerged that each category of property must be tested against the *Constitution* on its own merits, for example, patents, although they are part of the IP regime where the Constitutional right to ownership of trademarks and copyright has been settled.¹³¹⁶

With these property categories now satisfactorily understood, the discussion moves to the three categories of IKS, namely GR, TCE and TK, in the next three subparagraphs. The ownership of GR is directly linked to ownership of the land on which the GR are present, while TK and TCE require a creation-of-the-mind component to establish ownership.¹³¹⁷ The ownership of IKS can, therefore, not be dealt with without also considering the ownership issues pertaining to the respective sub-categories of IKS. Before proceeding, the reader is reminded of the task at hand in the first part of paragraph 5.3.5, namely, to convince the reader that IKS-related property claims should pass the same seven-step tests for the protection of property developed in the *FNB* case. This is no trivial matter, as Raath and Brits point out.¹³¹⁸ They argue that IKS as such is too broad if one wishes to define a legal object. This correlates with the WIPO approach where GR, TCE, and TK are dealt with as separate legal objects. They continue to argue that once there is legal certainty on the status of these legal objects, one should consider whether existing legal principles of public and private law apply sufficiently to IKS.¹³¹⁹ In this regard, they consider problematical aspects regarding the terminology used in recent

¹³¹⁶ Van Der Walt and Shay 2014 *PER/PELJ* 77.

¹³¹⁷ See para 2.4.2 where Bratspies' views are discussed. Bratspies asks: "Firstly, are indigenous biological resources in question ownable at all? Secondly, who owns knowledge?".

¹³¹⁸ Raath and Brits 2018 *TSAR/JSAL* 739.

¹³¹⁹ Raath and Brits 2018 *TSAR/JSAL* 754.

amendments to IP legislation.¹³²⁰ In addition to questioning the legal status of IKS as a legal object, further questions are posed regarding the possibilities of awarding IPLCs' juristic status and the implications this involves under South African law.

5.5.1.1 Traditional knowledge and traditional cultural expressions

Various legal theories may apply in determining the proprietary ownership of TK and TCE. TK and TCE also traverse the boundaries between international, domestic, and customary law. As with IP, a systematic approach is required in terms of which each legal theory and international instrument is considered and weighed against the fundamental legal requirements for real and personal property. These legal theories and international law instruments must also pass the Constitutional test and comply with sections 25 and 36, which requires the balancing of TK and TCE as property.

Du Bois points out that the labour theory will not be useful if proprietary ownership of TK and TCE is to be determined because TK and TCE are, in the main, transferred from one generation to the next through storytelling or sacred ceremonies, resulting in the reward going to the last person who laboured on the work. The reward- and incentive theories are also inappropriate because of the secret nature of TK and TCE where disclosure is not rewarded by employing property rights, such as for patents. The personality theory (even though it is in the singular) might be appropriate since "knowledge is sometimes so closely connected to the cultural and spiritual life of the holders of the traditional knowledge".¹³²¹

The personality theory resonates well with this thesis because IP interests function in a sphere of personal liberty (a Constitutional right), in which the *droit moral* of authors is respected. Similarly, the personality theory could serve as a point of departure in developing a property theory for IKS, while emphasising the *droit moral* of ICs and not necessarily the authors or creators. Theories apart, Du Bois is correct when she argues that TK should receive property-rule type protection in private law,

¹³²⁰ See para 5.13.

¹³²¹ Du Bois 2018 *PER/PELJ* 26.

which would make its recognition and protection as property in terms of section 25 of the *Constitution* possible.¹³²² This recognition of TK as property was given in 2018 in the *IK Act*, which states that "TK constitutes property of indigenous communities within the meaning of section 25 of the Constitution".¹³²³

Helfer and Austin argue that the most central human rights issue for IPLC is the right to self-determination. IP is directly relevant to self-determination claims, particularly the cultural, technological, and economic development of IPLC.¹³²⁴ They continue to refer to certain articles in the *DRIP*¹³²⁵ and the *UDHR*¹³²⁶ which entrench these communities' rights to various aspects related to IP, and further acknowledge that for IPLC, the "non-proprietary materials in the intellectual commons [the public domain] create tensions", notably how knowledge in the public domain can be free for others to use.¹³²⁷ The authors' plea to recognise the value and diversity of and respect for TK and TCE, are prerequisites for the positive protection of TK and TCE as proprietary rights.

5.5.1.2 Genetic resources (Indigenous Biological Resources)

Property rights relating to GR, or IBR as referred to in South Africa, require a different approach than TK and TCE, mainly because GR is linked to the land on and with which such IBR are associated. IBR comprise of any material of plant, animal, of microbial or other origin containing functional units of heredity as encountered in nature and are not creations of the human mind. Note that the WIPO definition of GR does not include other natural resources, such as minerals and precious metals, which may also be linked to the land of IPLC. However, natural resources cannot be excluded from any IKS conversation, notably, because the *IK Act* defines natural resources as inclusive of IBR and mineral deposits and IK as "knowledge of natural

¹³²² Du Bois 2013 *European Property Law Journal* 170.

¹³²³ Section 9(2) of the *Constitution*.

¹³²⁴ Helfer and Austin *Human Rights and IP* 470.

¹³²⁵ Articles 11, 24, 31(1 and 2) of the *DRIP* (2007).

¹³²⁶ Article 15(1)(c) of the *UDHR* (1948).

¹³²⁷ Helfer and Austin *Human Rights and IP* 472.

resources".¹³²⁸ These definitions render the *IK Act* unworkable and conflict with other legislation governing mineral rights.¹³²⁹

Although Helfer and Austin's view regarding the *DRIP* is supported, one cannot ignore the extent to which these rights are stretched. For example, the phrase in article 24 that claims "the conservation of [ICs'] vital medicinal plants, animals and minerals"¹³³⁰ is problematic. This is because the Declaration thereby extends its self-imposed mandate from human rights to grant IPLC proprietary rights in and to GR and minerals, without considering the sustainable use of such land – something that will not pass Constitutional muster should this matter be balanced against section 24 of the *Constitution* that aims to ensure the ecological sustainable use of GR.

With the Constitutional aspects related to IP and IKS as property now adequately discussed, the next section will discuss specific South African legislation related to IP and IKS, starting with trademarks. It will be argued that with most genera of IKS regarded as property in terms of the *Constitution*, legal protection for TK, TCE and GR (IBR) can be found under existing IP-related legislation, among others.

5.6 Trade Marks Act 194 of 1993

The *Trade Marks Act* 194 of 1993 (hereafter *Trademarks Act*) provides for the registration of trademarks, certification marks, and collective trademarks – the latter two incorporating geographical names or other indications of geographical origin.¹³³¹ The *Trademarks Act* complies with international law instruments, notably the *Paris Convention* and the *TRIPS Agreement*. Sections 10(6) and 35(1) of the *Trademarks Act* regulate well-known marks in compliance with the *Paris Convention*.¹³³² Sections

¹³²⁸ Section 1 of the *IK Act*.

¹³²⁹ One can only wonder how the ancient Kingdom of Mapungubwe would have frowned upon today's legislators who got mixed up between minerals and knowledge. The ancient people of Mapungubwe not only mined and traded in ivory, gold, beads and minerals, they also had the knowledge to weave cotton, work the land, and work metals – as evidenced by the golden rhinoceros.

¹³³⁰ Article 24 of the *DRIP (2007)*. A 24(1). "Indigenous peoples have the right to their traditional medicines and to maintain their health practices, including the conservation of their vital medicinal plants, animals and minerals".

¹³³¹ Preamble and s 43(2) of the *Trademarks Act*.

¹³³² Article 6^{bis} of the *Paris Convention (1883)*.

42 and 43 protect certification marks and collective marks (including GI¹³³³ and names¹³³⁴), as is required under the *TRIPS Agreement*.¹³³⁵ South Africa is not a contracting party to the *Lisbon System*,¹³³⁶ which poses some challenges regarding the different ways in which AOO (*Paris Agreement*) and GI are applied worldwide.

As TCE are in many cases receptive to protection by means of marks, the application of trademarks, certification trademarks¹³³⁷ and collective trademarks¹³³⁸ in the *Trademarks Act* are important to this thesis.

The importance of sections 42 and 43 is confirmed by the WIPO-IGC, which makes a strong case for registering and using collective and/or certification marks for the legal protection of handicrafts. The WIPO-IGC states that such protection

can help indigenous communities to distinguish their handicrafts from others, and promote them and the artists who made them nationally and internationally.¹³³⁹

The use of the terms 'collective' or 'certification' marks in South Africa's trademark legislation complies with article 22 of the *TRIPS Agreement* where the term GI is used.

As an advocate for the use of GI and/or AOO as a legal tool for IPLC to differentiate TCE from others, one cannot deny that such efforts will not be without unintended

¹³³³ Section 42(1) of the *Trademarks Act*.

¹³³⁴ Section 43(2) of the *Trademarks Act*.

¹³³⁵ Articles 22, 23 and 24 of the *TRIPS Agreement* (1994).

¹³³⁶ See para 3.3.2.1 where the Lisbon Agreement (1994) and the Geneva Act (2015) of the Lisbon Agreement are discussed.

¹³³⁷ Section 42(1) of the *Trademarks Act*. "A mark capable of distinguishing, in the course of trade, goods or services certified by any person in respect of kind, quality, quantity, intended purpose, value, geographical origin or other characteristics of the goods or services, or the mode or time of production of the goods or of rendering of the services, as the case may be, from goods or services not so certified, shall, on application in the prescribed manner, be registrable as a certification trade mark in respect of such first-mentioned goods or services, in the name, as proprietor thereof, of that person: Provided that a mark may not be so registered in the name of a person who carries on a trade in the goods or services in respect of which registration is sought".

¹³³⁸ Section 43(1) of the *Trademarks Act*. "A mark capable of distinguishing, in the course of trade, goods or services of persons who are members of any association from goods or services of persons who are not members thereof, shall, on application in the manner prescribed and subject to the provisions of this section, be registrable as a collective trade mark in respect of such first-mentioned goods or services in the name of such association as the proprietor thereof".

¹³³⁹ WIPO IGC Background Brief - No 5 2.

consequences. One such concern is the possible dilution of GI or AOO. Section 34(1)(c), the anti-dilution provision in the *Trademarks Act*,¹³⁴⁰ is intended to prevent the use by a third party of an infringing trademark that is identical or confusingly similar to a registered trademark. In case of dilution, the use of the infringing mark would be likely to take unfair advantage of, or be detrimental to, the distinctive character or repute of the registered trademark, regardless of any confusion or deception. Situations are, therefore, foreseen where different IPLC may seek to use confusingly similar GI or AOO, especially where the subject matter at hand is well known in a territory broader than that of IPLC – the cancer bush example comes to mind.

In cases like *Lucky Star*¹³⁴¹ and *Century City*¹³⁴² the South African courts have been clear that the interpretation of 'similar' must not be too wide. Such an interpretation would give rise to an unacceptable monopoly and restrict others' freedom of trade, which is a Constitutional right. Care should therefore be given to how GI and AOO are defined for TCE purposes.

The amendments proposed to the *Trademarks Act* in the *IPLA Act* of 2013 are not yet in force – to be supported, amendments inter alia aim to entrench the use of certification marks, collective trademarks and GI in order to protect TCE of IPLC.¹³⁴³ Apart from these proposed amendments, the *Trademarks Act* seems to provide adequate protection for IKS-related marks.

¹³⁴⁰ Section 34(1)(c) of the *Trademarks Act*. "The rights acquired by registration of a trade mark shall be infringed by the unauthorized use in the course of trade in relation to any goods or services of a mark which is identical or similar to a trade mark registered, if such trade mark is well known in the Republic and the use of the said mark would be likely to take unfair advantage of, or be detrimental to, the distinctive character or the repute of the registered trade mark, notwithstanding the absence of confusion or deception".

¹³⁴¹ *Lucky Star Ltd v Lucky Brands (Pty) Ltd* (164/2015) [2016] SCA 77 para 13 (*Lucky Star* case).

¹³⁴² *Century City Apartments Property Services CC and Another v Century City Property Owners Association* 2009 ZASCA 157 para 14 (*Century City* case).

¹³⁴³ Section 9(43B)(2) of the *IPLA Act*. "A traditional term or expression shall be capable of constituting – (a) a certification trade mark or a collective trade mark; or (b) a geographical indication".

5.7 Copyright Act 98 of 1978

The *Copyright Act* 98 of 1978 (hereafter *Copyright Act*) is analysed in its present form, bearing in mind that the recent amendments to this Act are not yet in force.¹³⁴⁴ The *Copyright Act* provides for copyright protection of nine categories of works¹³⁴⁵ in compliance with the provisions of the *Berne Convention* to which South Africa is a signatory. Although all nine protectable works are important, a strong focus will be placed on literary, artistic, and musical works when IKS is analysed in relation to the *Copyright Act*. Authorship and ownership in works, the tangible format of works, the limitations and exceptions to copyright, the performance of a work, and the moral rights of authors also have direct relevance to the IKS discourse.

5.7.1 Requirements to obtain copyright

Authorship and ownership, as defined in the *Copyright Act*, require careful consideration within the context of IKS in South Africa. For example, copyright is conferred on a qualified person, referred to as the author. An author, in the case of a literary, musical, or artistic work, means "the person who first makes or creates the work".¹³⁴⁶ In addition, to be the author, the copyright holder must also be an individual or a juristic person who meets additional legal requirements as prescribed by the Act to be classified as a qualified person.

IKS works eligible for copyright protection are *prima facie* protected by the *Copyright Act*. Where individuals from IPLC wish to be recognised as the rightsholder in such works, those individuals, or the IPLC, will have to meet the requirements set for a qualified person. There are no laws in South Africa that provide for the incorporation of IPLC as juristic persons, meaning that the original author will be regarded as the rightsholder where they seek copyright protection for TK and/or TCE. Should the

¹³⁴⁴ See paras 5.7.7 and 5.13.

¹³⁴⁵ Section 2(1) of the *Copyright Act*. These categories of works are: Literary works; musical works; artistic works; cinematograph films; sound recordings; broadcasts; programme-carrying signals; published editions; and computer programs.

¹³⁴⁶ Sections 1(1) and 3 of the *Copyright Act*.

proposed copyright amendments come into force, various concerns regarding IPLC as juristic persons arise, as will be discussed later.¹³⁴⁷

Furthermore, the Copyright Act prescribes that works must be: i) original, and ii) in a tangible format (material form) to be eligible for copyright.¹³⁴⁸ These are requirements imposed on South Africa by the *Berne Convention*. In many instances, TK and TCE are sacred and/or secret and transferred in IPLC from one generation to the next through storytelling or sacred ceremonies. The originality requirement for works eligible for copyright is almost hidden in section 2(1) of the *Copyright Act*. Originality is very difficult, if not impossible, to prove where those IPLC transfer TK and TCE through storytelling or sacred ceremonies.

5.7.2 Ideas, thoughts and facts

Copyright in ideas and facts cannot exist. The *Galago Publishers v Erasmus* case¹³⁴⁹ dealt with the infringement of ideas and facts. The appellant unsuccessfully argued that he had applied original effort to create an independent work of his own while producing a book on the history of the Selous Scouts, a unit in the Rhodesian army. The judge applied the *dictum* that there is no copyright in ideas, thoughts, or facts, but only in the form of their expression. He then proceeded to say that "the copying of an author's selection and compilation of facts and the manner in which he presents them may well amount to infringement of copyright [of others]".¹³⁵⁰ Since many IPLC rely on ideas and storytelling, the *Galago* case's ruling will result in many future claims in and to copyright by IPLC being rejected by the courts. This may lead to arguments favouring a *sui generis* system for some forms of IKS that cannot be protected under existing copyright legislation because the *Berne Convention* does not protect ideas, and South Africa cannot legislate outside its international

¹³⁴⁷ See para 5.13.

¹³⁴⁸ Section 2(2) of the *Copyright Act*. "A work [if it is original], except a broadcast or programme-carrying signal, shall not be eligible for copyright unless the work has been written down, recorded, represented in digital data or signals or otherwise reduced to a material form".

¹³⁴⁹ *Galago Publishers (Pty) Ltd and Another v Erasmus* 1989 (1) SA 276 (A)285, 280 (*Galago* case).

¹³⁵⁰ *Galago Publishers (Pty) Ltd and Another v Erasmus* 278.

commitments. Okediji's four-tier proposal to deal with this matter is most likely a viable option to consider.¹³⁵¹

5.7.3 Public domain

Like other rights, copyright is not absolute,¹³⁵² and sections 12 to 19 of the *Copyright Act* deal with fair dealing, general exceptions, and limitations.¹³⁵³ These terms are associated with the demarcation of the public domain and comply with the *Berne Convention*, which requires that in special cases, fair dealing may not "conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author".¹³⁵⁴ A deep understanding of these limitations and exceptions and how South Africa approaches the fair dealing doctrine regarding IKS is required to contribute to this field of study. For example, Pistorius, while substantiating her argument concerning the *Moneyweb* case, argues that fair dealing is a right, as opposed to Dean and Karijker, who argue that fair dealing is a defence. Pistorius says:

[T]he general purpose of copyright exceptions and limitations is to balance the public's right to access copyright works and the economic rights of copyright owners.¹³⁵⁵

The first time that the fair dealing doctrine was tested in South African courts was in the *Moneyweb* case, where judge Berger stated that: "Copyright is an intellectual property right. It is protected by section 25(1) of the *Constitution*".¹³⁵⁶ Both the applicant (Moneyweb) and respondent (Media24) publish articles on the internet and other digital platforms. Moneyweb alleged that Media24 "copied, appropriated

¹³⁵¹ See table 3-1 where Okediji's proposal to deal with IKS related copyright is discussed.

¹³⁵² *Moneyweb (Pty) Ltd v Media 24 Ltd and Another* para 108; The judge said that "a law of general application could therefore limit a right in terms of section 25(1), provided that the law meets the requirements of section 36 of the Constitution. It follows that the right to reproduce or publish a copyrighted work is not absolute".

¹³⁵³ Section 12 of the *Copyright Act* (General exceptions from protection of literary and musical works); S 14 of the *Copyright Act* (Special exception in respect of records of musical works); and S 15 of the *Copyright Act* (General exceptions from protection of artistic works) are of importance to this thesis.

¹³⁵⁴ Article 9(2) of the *Berne Convention (1886)*. This is Berne's three-step test.

¹³⁵⁵ Pistorius "Exceptions and Limitations" 289; Pistorius refers to the other IP scholars, Dean and Karijker's opposing views during her assessment of fair dealing.

¹³⁵⁶ *Moneyweb (Pty) Ltd v Media 24 Ltd and Another* para 108.

and/or plagiarised [eight of] its articles".¹³⁵⁷ Media24 relied on the fair dealing provision in the *Copyright Act*, which excludes certain official texts from copyright protection – eg, laws, speeches of a political nature, or material in the "news of the day" that is "mere[ly] items of press information".¹³⁵⁸ During his judgment, the judge laid down a few factors to consider in determining fair dealing. These non-exhaustive factors are:

- (i) the nature of the medium in which the works have been published;
- (ii) whether the original work has already been published;
- (iii) the time lapse between the publication of the two works;
- (iv) the amount (quality and quantity) of the original work that has been taken;
- (v) the extent of the acknowledgment given to the original work.¹³⁵⁹

Although this case dealt with the news of the day, these non-exhaustive factors can also be applied to how TK and TCE are testing the boundaries of the public domain. There are already liberal copyright scholars such as Li who argue that user rights are the way to go. She argues that, for example, the remix of existing music works has emerged as a dominant force of creation in the digital and internet age, requiring the same rights and obligations in and to their creations enjoyed by other protectable subject matter.¹³⁶⁰

5.7.4 IKS and copyright

Looking at copyright from an IKS perspective, Ncube points out that in a survey conducted in 2012, only twelve of 360 (3%) new children's fiction titles in South Africa were produced in African languages.¹³⁶¹ Although there is disagreement with some of the reasons that she gives for so low a percentage (eg, "colonial and current national language policies that favour literature in dominant languages" or "societal

¹³⁵⁷ *Moneyweb (Pty) Ltd v Media 24 Ltd and Another* para 53.

¹³⁵⁸ Section 12(1)(c)(i) of the *Copyright Act*

¹³⁵⁹ *Moneyweb (Pty) Ltd v Media 24 Ltd and Another* para 113.

¹³⁶⁰ Li 2019 *Law, Innovation and Technology* 52.

¹³⁶¹ Ncube "Calibrating copyright for creators and consumers: Promoting distributive justice and Ubuntu" 254.

attitudes that consider African languages to be inferior to other languages"¹³⁶²), she offers the view that

[i]ntellectual property (IP) laws and principles have failed to gain traction in Africa because they are based upon Western ideas of an individual's rights to intangible property that fail to factor in widespread communitarian perspectives.¹³⁶³

This is because TK and TCE that IPLC create, are maintained and exploited for the benefit of the collective. In this regard, it is important to note that the creator (author) traditionally 'maintains and exploits' the folklore through storytelling instead of publishing the story. Interestingly, Ncube then recommends that to promote the production of folklore books in African languages, a policy of "remunerate[ing] authors to spur and reward such production"¹³⁶⁴ should be adopted. This recommendation, which implies the utilisation of Western copyright laws, arguably contradicts her earlier call for a "sui generis system of protection for traditional knowledge".¹³⁶⁵

Even when authors are remunerated "in a manner conducive to social and economic welfare",¹³⁶⁶ a requirement that article 7 of the *TRIPS Agreement* imposes upon South Africa, the author is still excluded from the legal enforcement system due to financial or other constraints. Weatherall¹³⁶⁷ points out that questions need to be asked in this regard. Weatherall then draws the reader's attention to authors who have:

distinct moral claims, and personal interests not likely to be felt with the same intensity by publishers or record companies [and that] policymakers often fail to ask whether specific reforms actually benefit authors.¹³⁶⁸

¹³⁶² Ncube "Calibrating copyright for creators and consumers" 255.

¹³⁶³ Ncube "Calibrating copyright for creators and consumers" 263.

¹³⁶⁴ Ncube "Calibrating copyright for creators and consumers" 264.

¹³⁶⁵ Ncube "Calibrating copyright for creators and consumers" 264.

¹³⁶⁶ Article 7 of *TRIPS Agreement* (1994). Note that Weatherall points out that authors are excluded from international legal instruments, eg the *TRIPS Agreement*.

¹³⁶⁷ Weatherall 2018 *The University of Sydney Law School: Legal Studies Research Paper Series No 18/63* 558.

¹³⁶⁸ Weatherall 2018 *The University of Sydney Law School: Legal Studies Research Paper Series No 18/63* 549.

From an IKS perspective, this disconnect between authors and rightsholders becomes even more complex as the representatives of IPLC act as intermediaries between the authors and the rightsholders (eg, publishers or record companies) and because in many cases the copyright work is in the public domain, or the applicable IPLC is seen as the author. Weatherall also examines the author as risk-sharer when it comes to the financial ability of rightsholders to enforce damage claims in infringement cases, where publishers usually act as risk-taker in the economy, while the author is merely the bearer of moral and personal rights.¹³⁶⁹ Conventional publishing agreements allow the rightsholder to deduct enforcement costs prior to benefit sharing with authors and/or with IPLC acting as intermediaries between authors and publishers.

5.7.5 Performers of copyright works

Performers of literary, musical, and artistic works are protected under the *Performers' Protection Act (hereafter PP Act)*.¹³⁷⁰ The rights created by the *PP Act* in no way restrict or affect the rights to copyright in literary, music and artistic works provided for by the *Copyright Act*.¹³⁷¹ Therefore, the rights of performers of TCE cannot be considered unless the provisions of the *Copyright Act* and the *PP Act* are considered simultaneously. One example of the importance of this requirement is the lack of a definition of a 'performer' in the *Copyright Act*, while it is indeed defined in the *PP Act*. The situation is reversed with the term 'performance',¹³⁷² which is defined in the *Copyright Act*, but not in the *PP Act*.

¹³⁶⁹ Weatherall 2018 *The University of Sydney Law School: Legal Studies Research Paper Series No 18/63* 551.

¹³⁷⁰ Section 3 of the *PP Act*.

¹³⁷¹ See para 5.8 where the *PP Act* is discussed.

¹³⁷² Section 1(1) of the *Copyright Act*. "'Performance' includes any mode of visual or acoustic presentation of a work, including any such presentation by the operation of a loudspeaker, a radio, television or diffusion receiver or by the exhibition of a cinematograph film or by the use of a record or by any other means, and in relation to lectures, speeches and sermons, includes delivery thereof; and references to 'perform' in relation to a work shall be construed accordingly".

Concerning TCE, it cannot be assumed that IPLC will be regarded as the performer of any performance of a literary, musical, or artistic work and therefore also considered to be the author of the performance.

5.7.6 Reversionary rights

The concept of reversionary rights¹³⁷³ has its origins in the UK *Copyright Act* after the famous author Charles Dickens's family was destitute while his work generated enormous profits for publishing companies.¹³⁷⁴ Ncube¹³⁷⁵ suggests that reversionary rights as included in past iterations of imperial copyright law, namely section 5(2) of South Africa's *Copyright Act* 1916,¹³⁷⁶ should be reconsidered to secure equitable treatment for authors and their heirs.¹³⁷⁷ This has indeed been done in the *Copyright Amendment Bill*.¹³⁷⁸

One high profile case in this regard involved the song *Mbube* of which the original Zulu tune was composed by Solomon Linda and became famous after Disney's movie *The Lion King* was released.¹³⁷⁹ Solomon Linda's heirs and Disney settled on an undisclosed amount in 2006 based on reversionary rights, which date back to the *British Imperial Copyright Act*, and which was applicable in the Union of South Africa at that time. In South Africa, this right still applies to works made before 11 September 1965,¹³⁸⁰ which gave Linda's heirs the window of opportunity to utilise this provision to their advantage. The settlement included the following: "The estate

¹³⁷³ Pistorius "Exceptions and Limitations" 259; A Reversionary Right is a condition which provides that, on the happening of a prescribed event (eg after a certain period of time), ownership of the intellectual property (eg copyright) will revert to the previous owner (creator of the work) or, if so expressed, to the heirs of the previous owner if since deceased, or their successors in title. Pistorius says that "Section 5 of the 1916 Copyright Act invalidated *inter vivos* assignments by authors of their works as well as licences to publish such works in so far as concerned the second half of the 50-year period after the author's death. This provision was enacted out of a concern for the dependants of deceased authors".

¹³⁷⁴ Pistorius "Exceptions and Limitations" 260.

¹³⁷⁵ Ncube "Calibrating copyright for creators and consumers" 279.

¹³⁷⁶ In 1916, the Union of South Africa (present day Republic of South Africa), incorporated the *British Imperial Copyright Act* into South African law.

¹³⁷⁷ Giblin and Weatherall (eds) *What if we could reimagine copyright?* 279.

¹³⁷⁸ See para 5.7.7.

¹³⁷⁹ *Disney Enterprises Inc v Griesel NO and Others* 895 JOC (T).

¹³⁸⁰ Giblin and Weatherall (eds) *What if we could reimagine copyright?* 279; Reversionary rights apply to works made before the day on which the 1965 Copyright Act became in force by authors and composers who died less than 50 and more than 25 years before that date.

was to receive payment for past uses of *The Lion Sleeps Tonight* and an entitlement to future royalties from its worldwide use. *The Lion Sleeps Tonight* was to be acknowledged as derived from "Mbube". Solomon Linda was to be acknowledged as a co-composer of *The Lion Sleeps Tonight* and to be designated as such in the future. A trust was to be formed to administer the estate's copyright in *Mbube* and to receive on their behalf the payments due from the use of *The Lion Sleeps Tonight*".

Ncube's suggests a two-tier system for reversionary rights where it is assumed that "authors in disadvantaged contexts are often not in a position to bargain equally... due to their probable lack of knowledge of copyright and other relevant laws".¹³⁸¹ With this viewpoint, some may argue that she is degrading IPLC. On the other hand, she also asks why the same rules should not apply to Western authors or software coders working for multinationals and whose IP rights are settled in their employment contracts.

Furthermore, as Young-Ing points out, the version of the song that was made famous by Disney was essentially a derivative work, with the writer credit listed as "traditional; adapted and arranged by Campbell-Linda"¹³⁸² after the American folk group *The Weavers* performed a derivative version of the song in the 1950s. In this respect, it is a pity that the *Solomon Linda's Heirs v Disney* case was never settled in court because reversionary rights should not extend to second- and third-tier exploitation of works (derivative works), such as the *de minimis* drumbeat example. This would undoubtedly lead to consequences not envisaged by the authors of the *Bern Convention*.

¹³⁸¹ Gibling and Weatherall (eds) *What if we could reimagine copyright?* 276.

¹³⁸² Young-Ing *Intellectual Property Rights, legislated protection, sui generis models and ethical access in the transformation of indigenous traditional knowledge* 54.

5.7.7 Copyright Amendment Bill, 2018

In 2018, the *Copyright Amendment Bill (2018)*¹³⁸³ passed by both Houses of the legislator was sent to the President for signature. He returned the Bill to parliament in July 2020. This Bill has become a subject of fierce criticism within the context of the difficult challenges currently facing the South African education sector. Notably, the South African Copyright Alliance,¹³⁸⁴ representing various stakeholders,¹³⁸⁵ warned the South African government that

[i]t is confusing how we call for stronger systems (legislation and institutions) to work towards ensuring creators live better quality lives and are able to retire and pass on with dignity, yet our legislators are pushing laws that weaken the system that protects them.¹³⁸⁶

Concerning the protection of local (traditional and indigenous) artists, the *Copyright Amendment Bill* appears to achieve the opposite. It may be seen as an onslaught on the public domain – this time to narrow and restrict access to IKS. For example, certain provisions of the *Copyright Amendment Bill* can deprive IPLC of any benefits that could and should accrue to them from their creative works. Once the *Copyright Amendment Bill* is enacted, these works will revert to the public domain. The technologically advanced society in which we live is also brought into context.

¹³⁸³ *Copyright Amendment Bill (2018)* preamble. "To amend the Copyright Act, 1978, so as to define certain words and expressions; to allow for further limitations and exceptions regarding the reproduction of copyright works; to provide for the sharing of royalties in copyright works; to provide for the payment of royalties in respect of literary, musical, artistic and audiovisual works; to provide for resale royalty rights; to provide for recordal and reporting of certain acts; to provide for the accreditation of collecting societies; to provide for a mechanism for settlement of disputes; to provide for access to copyright works by persons with disabilities; to provide for the licensing of orphan works; to strengthen the powers and functions of the Copyright Tribunal; to provide for prohibited conduct in respect of technological protection measures; to provide for prohibited conduct in respect of copyright management information; to provide for protection of digital rights; to provide for certain new offences; and to provide for matters connected therewith".

¹³⁸⁴ Copyright Alliance 2019 <https://www.samro.org.za/news/articles/copyright-alliance-petitions-parliament-over-proposed-new-law>.

¹³⁸⁵ The South African Copyright Alliance comprises of the Southern African Music Rights Organisation (hereafter SAMRO), the Composers, Authors and Publishers Association (hereafter CAPASSO), the Dramatic, Artistic and Literary Rights Organisation (hereafter DALRO), the Recording Industry of South Africa (hereafter RiSA), the South African Music Performance Rights Association (hereafter SAMPRA), the Musicians Association of South Africa (hereafter MASA) and the Music Publishers Association of South Africa (hereafter MPASA).

¹³⁸⁶ Copyright Alliance 2019 <https://www.samro.org.za/news/articles/copyright-alliance-petitions-parliament-over-proposed-new-law>. 1.

Consider the following example within the context of *Mbube* and IKS: Even though a *de minimis* drumbeat¹³⁸⁷ of a rhythm belonging to IPLC might be easy to blend into a hip-hop song using digital sampling, and the creator of the derivative work might be willing to pay those IPLC royalties for the use of the original drumbeat, the community could consider the drumbeat to be part of a sacred ceremony and therefore refuse permission for the use of the original work – and by doing so threaten the boundaries of the public domain. In this example, it would be difficult to argue why existing legal instruments pertaining to *droit moral* of IPLC in most copyright regimes worldwide cannot adequately deal with this matter, since the moral rights of authors are well protected.

5.7.7.1 Reversionary rights

One proposed amendment to the *Copyright Act* relates to reversionary rights, arguably because of the Solomon Linda saga discussed above.¹³⁸⁸ Clause 23 of the *Copyright Amendment Bill* proposes an amendment to section 22 of the *Copyright Act* by providing (reinstating) reversionary rights where copyright in a literary or musical work has been assigned by an author.¹³⁸⁹ The commercial rationale for this inclusion does not correlate with studies indicating that copyright's duration is not central to the optimisation of copyright protection. For example, the average work (music) "earn[] the substantial portion of its lifetime revenues in the first 5-10 years following release", and with successful books even less, depreciating by 12 per cent each year.¹³⁹⁰

Craig appears to favour reversionary rights, part of Canadian copyright law. She also emphasises evidence-based copyright reforms based on consistent indicators

¹³⁸⁷ Note that a *de minimis* drumbeat is two or more drumbeats from one or more drums that form part of a rhythm but cannot necessarily be recognised on their own when blended into other rhythms, although the learned ear will be able to recognise it. For example, during many television shows the participants are challenged with one, two or more notes until the first participant can recognise the song.

¹³⁸⁸ See para 5.7.6 where the Solomon Linda saga is discussed.

¹³⁸⁹ Section 23(b) of the *Copyright Amendment Bill (2018)*. "Provided that assignment of copyright in a literary or musical work shall only be valid for a period of up to 25 years from the date of such assignment".

¹³⁹⁰ Garcia and McCrary 2019 *Alabama Law Review* 52.

and authoritative data on the economic impact of copyright legislation.¹³⁹¹ Evidence-based copyright reforms seem to be a pragmatic approach for IKS, with the African Copyright Alliance already using data to support its criticisms against current copyright reforms.¹³⁹²

5.7.7.2 Public interest

Sun's recent article on protecting the public interest, as he refers to the public domain, compares fair use and fair dealing. Sun starts by comparing two court cases and then concludes with a recommendation that can find direct application in the current South African copyright reforms. The first case is the *Authors' Guild* case in the USA, where the Court of Appeals for the Second Circuit upheld the fair use ruling in favour of Google made by the District Court.¹³⁹³ The Beijing People's High Court heard the same matter in China, where Google lost.¹³⁹⁴ China applied the fair dealing doctrine, as opposed to the USA's fair use doctrine. The fundamentally different legal approaches by two world powers to the same subject matter (transformative use of copyright works) led to Sun's proposal to approach the public domain regarding copyright fundamentally different. He proposes a public interest principle in guiding the judicial settlement of fair use and fair dealing cases substantively and procedurally.¹³⁹⁵ With substantive reforms, he argues for the first step of the fair use doctrine also to consider the public domain. With procedural reforms, he argues for the rules to be less stringent when the burden of proof relates to the public domain. This will hopefully "reshape[ing] both the fair use and fair dealing doctrines to ensure that they can better serve the larger social needs of the globalized digital world".¹³⁹⁶ Sun's views are beneficial, bearing in mind that the current copyright reforms involve a combination of fair dealing and fair use principles, which complicates how limitations to the copyright of IKS are approached.

¹³⁹¹ Craig 2019 *European Intellectual Property Review* 6.

¹³⁹² See para 5.7.7.

¹³⁹³ *Authors Guild v Google Inc (USA)* 804 F3d 202, 208 (2d Cir 2015) 214 (*Authors Guild* case).

¹³⁹⁴ *Google Inc (Appellant) v Wang Xin (Appellee) (China)* Gao Min Zhong Zi No 1211 (2013) (*Google* case).

¹³⁹⁵ Sun 2019 *Nw J Tech & IP* 123.

¹³⁹⁶ Sun 2019 *Nw J Tech & IP* 186.

5.8 Performers' Protection Act 11 of 1967

The *PP Act* provides for the protection of performers of literary and artistic works. The rights created by this Act do not restrict or affect the rights provided for by any other law relating to copyright in literary and artistic works.¹³⁹⁷

In 1997, in compliance with the digital rights provisions of the *WPPT*, the first amendments to the *PP Act* were effected. In 2002, the *PP Act* was again amended to provide for the inclusion of 'expressions of folklore' in the definition of 'literary and artistic works' – the definition now reads as follows and complies with article 2(a) of the *WPPT*.¹³⁹⁸

'Literary and artistic works' includes musical, dramatic and dramatico-musical works and expressions of folklore.¹³⁹⁹ (own emphasis)

The *PP Act* neglected to define 'expressions of folklore'. This omission was rectified in 2013 by the *IPLA Act*, with the definition of 'traditional work', namely

'Traditional work' has the same meaning assigned to it in the Copyright Act, and includes expressions of folklore.¹⁴⁰⁰

The meaning assigned to a traditional work (TW) in the *Copyright Act*, as amended by the *IPLA Act*, refers collectively to indigenous works (IW), derivative indigenous works (DIW), indigenous cultural expressions (ICE), and knowledge – these are all new definitions, that are to be read together.¹⁴⁰¹

In 2016, a further amendment to the *PP Act* was proposed with the *Performers' Protection Bill, 2016*.¹⁴⁰² This Bill aims to promote performers' moral and economic rights. The legislator's intentions are unclear as the *IPLA Act* has not come into effect to date. The *Performers' Protection Bill* has thus far been adopted by both

¹³⁹⁷ Section 2 of the *PP Act*.

¹³⁹⁸ Article 2(a) of the *WPPT (1996)*. "Actors, singers, musicians, dancers, and other persons who act, sing, deliver, declaim, play in, interpret, or otherwise perform literary or artistic works or expressions of folklore". Note that the *PP Act*'s definition does not yet include 'expressions of folklore'.

¹³⁹⁹ Section 1(1) of the *PP Act*.

¹⁴⁰⁰ Section 1(j) of the *IPLA Act*.

¹⁴⁰¹ Sections 3(f, j, k) of the *IPLA Act*.

¹⁴⁰² *Performers' Protection Bill 2016*.

Houses of Parliament and sent to the President for signature. Therefore, for this study, the current *PP Act*'s definitions will be used.

The definition of a performer is also of importance to this thesis. In the present *PP Act*, 'performer' is defined as:

'[P]erformer' means an actor, singer, musician, dancer or other person who acts, sings, delivers, declaims, plays in or otherwise performs, literary or artistic works.¹⁴⁰³

However, should the *IPLA Act* and the *Performers' Protection Bill, 2016* come into effect at some point in the future, the combined definition of 'performer' will be as follows:

'[P]erformer' means an actor, singer, musician, dancer or other person who acts, sings, delivers, declaims, plays in, or otherwise performs literary works, musical works, artistic works, dramatic works, or works of joint authorship or traditional works as contemplated in the Copyright Act.¹⁴⁰⁴ (own emphasis)

The repeated omission of a clear definition of expressions of folklore in the *PP Act* remains a concern. This is because important analogies can be drawn between the protection of the folklore of IPLC and the bootlegging of live performances, as well as digital sampling of mainstream contemporary artists, such as Prince and DJ Shadow, in the digital age in which we live. Mowad draws the reader's attention to the complexities surrounding live performances and the copyright challenges that concert promoters face, with all concertgoers having access to advanced technological means which enable them to produce unauthorised audio and video clips of live performances which they then either distribute among friends, or sell – a practice termed 'bootlegging'.¹⁴⁰⁵ Mowad says that performing artists (notably Prince)¹⁴⁰⁶ who attempted to stop bootlegging by legal means soon realised it only antagonised their followers.

¹⁴⁰³ Section 1(1) of the *PP Act*.

¹⁴⁰⁴ Section 1(h) of the *Performers' Protection Bill (2016)*.

¹⁴⁰⁵ Mowad 2017 *Case W Res L Rev* 1340.

¹⁴⁰⁶ Mowad 2017 *Case W Res L Rev* 1316; Prince sued fans that distributed recordings of his concerts and claimed over \$22 million in damages for fans bootlegging his alleged proprietary footage of concerts. Prince's main legal argument was constructed around the tangible format requirement for copyright protection – in this case the fixation of his live performance in digital format.

Three legal issues are at hand. First, in the case of bootlegging, it is agreed that no new work is created. The work is merely fixated in an unauthorised manner,¹⁴⁰⁷ something that Prince realised is extremely difficult to prevent and even more difficult to track down and locate the alleged infringers.¹⁴⁰⁸ This is also true of the unauthorised fixation of TCE during sacred or secret rituals – a point which Brown stresses when he analyses the Hopi Indian religious observances taken by a tone-deaf missionary early in the twentieth century.¹⁴⁰⁹ In the case of digital sampling, the judges concurred in the *Bridgeport Music* case¹⁴¹⁰ that the digital sample did not meet the requirements of originality. As such, no new work was created but a derivative work.

Second, "sound recordings and their underlying musical compositions are separate works with their own distinct copyrights".¹⁴¹¹ According to the facts of the case, the soundtrack of the movie *Hook Up* used portions of the song *100 Miles and Running*, which included a two-second sample from the guitar solo from the song *Get Off Your Ass and Jam*. The sample's pitch was lowered, and the copied sample was looped and extended to 16 beats, appearing at various places in *100 Miles and Running*. The court accordingly (and in a reprimanding tone) ruled that copyright infringement was indeed present when the judges said, "Get a licence or do not [digital] sample".¹⁴¹²

¹⁴⁰⁷ Note that fixation in the context of copyright laws refer to the legal requirement that a work must be in a tangible format, or as Article 3(3) of the *Berne Convention* prescribes, it must be a "published work".

¹⁴⁰⁸ Mowad 2017 *Case W Res L Rev* 1318.

¹⁴⁰⁹ Brown *Who owns native culture?* 9.

¹⁴¹⁰ *Bridgeport Music, Inc v Dimension Films (USA)* 410 F3d 792 (2005) para 798 (*Bridgeport Music* case).

¹⁴¹¹ *Bridgeport Music, Inc v Dimension Films (USA)* para 810.

¹⁴¹² *Bridgeport Music, Inc v Dimension Films (USA)* 801; "Riff" is a word used in the hip-hop or jazz genres in the same context as the word *refrain* is used in other music genres; The complete quote reads as follows: "Get a license or do not [digital] sample We do not see this as stifling creativity in any significant way. It must be remembered that if an artist wants to incorporate a "riff" from another work in his or her recording, he is free to duplicate the sound of that "riff" in the studio. Second, the market will control the license price and keep it within bounds. The sound recording copyright holder cannot exact a license fee greater than what it would cost the person seeking the license to just duplicate the sample in the course of making the new recording. Third, sampling is never accidental. It is not like the case of a composer who has a melody in his head, perhaps not even realizing that the reason he hears this melody is that it is

Third, the *de minimis* defence in cases of bootlegging and digital sampling of the above issues needs to be considered – which the judges indeed did in the *Bridgeport* case.¹⁴¹³ In this case, the *de minimis* defence was ruled out because the classic fair-use defences were available. No wonder then, according to Mowad, that in this case, the court stated that "the record industry, including the recording artists, has the ability and know-how to work out guidelines . . . if they so choose",¹⁴¹⁴ implying that the legal system accepts that technology leads and the law will follow.

Digital sampling was an issue in the *Pelham* case, where the CJEU court heard the matter from a human rights perspective. Without repeating the facts of this case,¹⁴¹⁵ it needs to be mentioned that the CJEU was faced with the question of whether the EU copyright system itself is capable of accommodating the tension between freedom of expression and copyright (property rights) as human rights. In particular, the court had to evaluate whether, apart from the mechanisms already enshrined in the *InfoSoc Directive*, fundamental rights can serve as an autonomous external ground for balancing and, in this case, limiting, copyright. The court held that the *InfoSoc Directive* indeed safeguards a fair balance between the interests of rightsholders, users, and the public.¹⁴¹⁶ The EU confirmed in a statement that in terms of the *InfoSoc Directive*, contracting parties are permitted to "appropriately extend into the digital environment limitations and exceptions in their national laws".¹⁴¹⁷

This statement is encouraging from an IKS perspective because developed countries acknowledge that digital content is no different from analogue content and that the

the work of another which he had heard before. When you sample a sound recording you know you are taking another's work product".

¹⁴¹³ *Bridgeport Music, Inc v Dimension Films (USA)* paras 804, 810.

¹⁴¹⁴ Mowad 2017 *Case W Res L Rev* 1341.

¹⁴¹⁵ See para 3.8.6.

¹⁴¹⁶ *Pelham GmbH and Others v Ralf Hütter and Florian Schneider-Esleben (CJEU)* paras 39 and 87; The judge ruled that "article 2(c) of Directive 2001/29 must, in the light of the [EUCFR], be interpreted as meaning that the phonogram producer's exclusive right under that provision to reproduce and distribute his or her phonogram allows him or her to prevent another person from taking a sound sample, even if very short, of his or her phonogram for the purposes of including that sample in another phonogram, unless that sample is included in the phonogram in a modified form unrecognisable to the ear".

¹⁴¹⁷ *InfoSoc Directive (2001/29/EC)* para 9.

Berne Convention applies to both. Therefore, it is argued that scholars of IKS will not find it difficult to apply the three-step test to find the balance between IKS and the public domain. When one applies these legal principles, which were independently developed in USA and EU court cases, to IKS (there are many more examples),¹⁴¹⁸ it is difficult to argue for a *sui generis* type of protection for TCE. To substantiate this viewpoint, one needs only to refer to the matter settled by Solomon Linda, the author of *Mbube*.¹⁴¹⁹

However, this argument only holds as far as monetary benefit sharing is concerned. Regarding the case study on the Caprivi Bush People of Namibia,¹⁴²⁰ the correct treatment of expressions of folklore in the public domain is not that trivial. For example, even though a *de minimis* drumbeat of an indigenous community might be easily blended into a hip-hop song by digital sampling, the community could consider that the drumbeat forms part of a sacred ceremony, and so refuse permission for the use of the original work. This might occur even if the creator of the derivative work is willing to pay that indigenous community royalties for the use of the original drumbeat. Nevertheless, there are extant legal instruments to deal with such matters. In the hypothetical case above, it would be difficult to argue why existing provisions relating to *droit moral* of creators in most copyright regimes worldwide are not adequate to deal with this matter.

5.9 Patents Act 57 of 1978

The *Patents Act 57 of 1978* (hereafter *Patents Act*), which provides for the registration and granting of patents for inventions, has its roots in the *Paris Convention* that protects industrial property.¹⁴²¹ The *Patents Act* also kept up with newer international law instruments that were developed to address the latest developments in this field, notably the *Budapest Treaty*, the *CBD*, the *PCT*, the

¹⁴¹⁸ Some of these examples are: The song of the Taiwanese indigenous peoples, Ami, *Song of Joy* that was adapted for the 1996 Olympic Games; the album *Deep Forest* from a Ghana band; See Arewa 2006 *Marq I P L Rev* 117, where these case studies are discussed.

¹⁴¹⁹ See para 5.7.6 where reversionary rights were discussed.

¹⁴²⁰ See para 4.5.

¹⁴²¹ See para 3.3.

TRIPS Agreement and the *Nagoya Protocol*. The *Patents Act*, inter alia, regulates the personal rights of inventors, the novelty requirement, inventiveness (creations of the mind) *versus* discoveries, and the influence that GR have on the patentability of inventions. These are matters in the *Patents Act* relevant to TK and GR.

5.9.1 *Natural persons*

Section 10(1)(a)¹⁴²² provides for the right of a natural person to be recognised as the inventor of a patent. It is one of the most fundamental rights in the *Patents Act*, stemming from principles laid down by the authors of the *Paris Convention*.¹⁴²³ Within the cultural frame of many IPLC the rights of inventors are often seen as communal rights, posing various Constitutional threats to those inventors. For example, like any other South African citizen, inventors have the right to freely choose their trade, occupation, or profession.¹⁴²⁴ Although the *Patents Act* allows for the assignment of those rights, the assignment of such a right by an inventor who happens to be a member of an IPLC, to that IPLC, may prove challenging as IPLC are not at presently recognised as juristic persons in South Africa.

5.9.2 *Novelty versus discoveries*

Section 25 sets out the requirements for patentable subject matter, which must be an invention (creation of the mind)¹⁴²⁵ as opposed to a discovery.¹⁴²⁶ During the earlier part of this thesis, various examples were given, including examples of the Rooibos, buchu and marula plants, which illustrate the difference between

¹⁴²² Section 10(1)(a) of the *Patents Act*. "There shall be kept at the patent office a register in which shall be entered - (a) the names and addresses of applicants for and grantees of patents and of the inventors of the relevant inventions and the classification of such patents according to subject-matter".

¹⁴²³ See para 3.3.1.1; Article 4^{ter} of the *Paris Convention (1883)*. "The inventor shall have the right to be mentioned as such in the patent".

¹⁴²⁴ Section 22 of the *Constitution*. "Every citizen has the right to choose their trade, occupation or profession freely. The practice of a trade, occupation or profession may be regulated by law".

¹⁴²⁵ Section 25(1) of the *Patents Act*. "A patent may, subject to the provisions of this section, be granted for any new invention which involves an inventive step and which is capable of being used or applied in trade or industry or agriculture".

¹⁴²⁶ Section 25(2)(a) of the *Patents Act*. " Anything which consists of – (a) a discovery; ... shall not be an invention for the purposes of this Act".

inventions and discoveries.¹⁴²⁷ It is undisputed by many inventors – eg, Fleming – that many inventions have indeed emanated from discoveries, and this acknowledgement that discoveries become part of the public domain is critical when TK and GR are analysed within the context of the inventiveness of patents.

5.9.3 Deposits of and declarations on genetic resources

The third point relates to the requirement that micro-organisms that form part of a patent's subject matter must be lodged with a suitable repository – a requirement imposed by the provisions of the *Budapest Treaty*¹⁴²⁸ and subsequently, in 2002, prescribed by section 32(6) of the *Patents Act*. This requirement ensures that wild-type micro-organisms that were discovered in the veld are not claimed as inventions or that applicants file for patent protection without disclosing the associated micro-organism, which is not available to the public on the date of lodging of the application. A product or process related to wild-type or GMO is patentable.¹⁴²⁹ This requirement is potentially problematic when IPLC claim rights in and to wild-type micro-organisms that are endemic to the area where an IPLC live, and where that IPLC refuses to release the organism based on cultural beliefs.

In 2005, in compliance with the *CBD*, another amendment to the *Patents Act* came into effect with the additional requirement that every applicant must state whether the invention claimed is based on, or derived from, an IBR or an IGR, and/or is derived from IK or use. Furthermore, should the invention be based on or derived from IK or use, the statement must mention whether it is co-owned by the owners of the IK or use.¹⁴³⁰ Of note is that the *Patents Act* defines 'traditional use' but fails

¹⁴²⁷ See para 3.3.1.

¹⁴²⁸ Article 3(1)(a) of the *Budapest Treaty* (1977).

¹⁴²⁹ Section 32(6) of the *Patents Act*; This section was amended by the *Patents Amendments Act* (2002) 58 of 2002. "If a complete specification claims as an invention a micro-biological process or a product thereof and requires for the performance of the invention the use of a micro-organism which is not available to the public on the date of lodging of the application and which cannot be made or obtained on the basis of the description in the specification, the micro-organism shall be dealt with in the prescribed manner".

¹⁴³⁰ Sections 30(3A) and 3B of the *Patents Act*; This section was amended by the *Patents Amendment Act* (2005). S 30(3A): "Every applicant who lodges an application for a patent accompanied by a complete specification shall, before acceptance of the application, lodge with

to define IPLC to which this 'use' applies.¹⁴³¹ This oversight aside, many definitions in the *Patents Act* and the *Biodiversity Act* are not consistently used, which will inevitably lead to confusion. Notably, some of these definitions are TK, IK and traditional use.¹⁴³¹

5.9.4 Benefit sharing

South Africa, as signatory to the *CBD*¹⁴³² and the *Nagoya Protocol*,¹⁴³³ also entrenches the sustainable use of IBR, as well, as that those industries which trade in IBR, such as Rooibos, must share benefits with TK rightsholders fairly and equitably. This is essentially an acknowledgement that discoveries made by the members of an IPLC cannot be negated. Therefore, this legislative provision is in line with these two international developments regarding the sustainable use of IBR and benefit sharing. The *Patents Act* does not expressly deal with benefit sharing. The *Patent Act* should be seen as the Act which creates proprietary rights for inventors and be read together with the *Biodiversity Act*, which expressly deals with benefit sharing of IBR.

5.9.5 Other provisions

It should be noted that South Africa is a non-examining country regarding the novelty requirement of inventions. This implies that only procedural compliance is required and that South Africa, unlike most other countries, does not conduct novelty searches before granting patent rights to inventors. This shortcoming poses some threats to IKS. For example, biopiracy is possible because no one will verify the origin of the micro-organism (unless there is a revocation application).

the registrar a statement in the prescribed manner stating whether or not the invention for which protection is claimed is based on or derived from an indigenous biological resource, genetic resource, or traditional knowledge or use".

¹⁴³¹ Section 1(1) of the *Patents Act*. "'Traditional knowledge' means the knowledge that an indigenous community has regarding the use of an indigenous biological resource or a genetic resource. 'Traditional use' means the way in which or the purpose for which an indigenous community has used an indigenous biological resource or a genetic resource".

¹⁴³² Preamble of the *CBD (1992)*.

¹⁴³³ *Nagoya Protocol (2010)*.

5.10 Designs Act 195 of 1993

The *Designs Act* 195 of 1993 (hereafter *Designs Act*), in the main, provides for the registration of aesthetic and functional industrial designs applied to articles intended to be multiplied using industrial processes. Designs are one of the categories of industrial property protected under the *Paris Convention*.¹⁴³⁴ The *Designs Act* also complies with the *TRIPS Agreement*. Unlike the *Patents Act*, the *Designs Act* does not require the author's name (natural person) to be provided in the application for a design. The novelty requirement is the same as in the *Patents Act*. In this regard, a design must be new and novel.¹⁴³⁵

The novelty requirement has been the subject of many local and international legal disputes. For example, in Australia, the designs of many Morning Star Poles, and in India, the design patterns of kashmir shawls have found their way to various industrial articles.¹⁴³⁶

Many forms of TCE, handicraft, for example, lend themselves to protection using design rights, hence the recent attempt by the legislator to amend the *Designs Act*.¹⁴³⁷ Although potential pitfalls are inherent in these amendments (notably the inconsistent use of definitions),¹⁴³⁸ the aims are to be supported.

Designs emanating from TCE are also very receptive to protection by means of collective or certification marks, or even GI, which genus of protection could prove to be more valuable than the design protection granted under the *Designs Act*. The WIPO-IGC supports this view as many manifestations of TCE have three distinct attributes: reputation (derived from their style, origin or quality); external appearance (look, size and shape); and the know-how or skills to create the products. A collective or certification mark can help IPLC distinguish their products

¹⁴³⁴ See para 3.3.

¹⁴³⁵ Section 14(1)(a) of the *Designs Act* 195 of 1993. "In the case of an aesthetic design, is - (i) new; and (ii) original, (b) in the case of a functional design, is - (i) new; and (ii) not commonplace in the art in question".

¹⁴³⁶ See Chapter 3 where Australian and Indian case studies are discussed.

¹⁴³⁷ *IPLA Act*. Also see para 5.13.

¹⁴³⁸ See para 5.13.

from others and promote them and the artists who made them nationally and internationally. Since many of these products result from traditional processes and knowledge carried forward by an IPLC from generation to generation in each region, GI might also be a feasible option by which these communities may protect their IP. Due to their material nature, designs lend themselves to replication once they are available in the public domain. GI as a protection mechanism is far more powerful than a design right in such cases. This is because GI can protect designed products against misleading and deceptive trading practices, protect the reputation or goodwill accumulated over time, and safeguard a niche market.¹⁴³⁹

The protection of spare parts as functional designs requires special mention. Pistorius and Visser argue that section 14(6) of the *Designs Act*, which was included after fierce lobbying by the automotive spare-parts industry, merely implies that these registrations, as prior publication, will destroy the novelty of a later design and that the registration will serve no other purpose for the proprietor. They also point out that in Europe the same issue was dealt with more appropriately by limiting the design rights to three years, thereby ensuring that the highly profitable automotive market could not be monopolised.¹⁴⁴⁰ Similar questions arise when this matter is applied to TCE that can obtain design protection in terms of the *IPLA Act*. For example, why should IPLC, as a group, be given preferential treatment under the *Designs Act*?

Since there are many overlaps between the *Patents Act* and the *Designs Act* regarding IKS, there is no need to discuss the *Designs Act* further, and it can now move to GR-related legislation.

5.11 Plant Breeders' Rights Act 51 of 1976

The 1976 *Plant Breeders' Rights Act* (hereafter *PBR Act*)¹⁴⁴¹ is in force. In 2018, a new *Plant Breeders Rights Act (2018 PBR Act)*¹⁴⁴² was assented to but will only come

¹⁴³⁹ WIPO IGC Background Brief - No 5 2.

¹⁴⁴⁰ Pistorius and Visser 1995 *South African Law Journal* 336.

¹⁴⁴¹ *Plant Breeders' Rights Act* 51 of 1976.

¹⁴⁴² *Plant Breeders' Rights Act* 12 of 2018.

into force once the necessary regulations have been published and the Act has been proclaimed. One of the *2018 PBR Act* objectives is to bring South African law into line with the 1991 amendments to the *UPOV Convention*. It is anticipated that South Africa will accede to the latest version of the *UPOV Convention*.¹⁴⁴³

Section 10 is one important new provision in the *2018 PBR Act* in terms of which the Minister will prescribe regulations, which mainly relate to small farmers.¹⁴⁴⁴ The rights of small farmers in IPLC must be considered part of TK and GR. One such right is the right to save, use, exchange, and sell farm-saved crop seed varieties, which is not regulated or permitted by the current Act or other national laws. Another positive aspect of the *2018 PBR Act* is its alignment with the *UPOV Convention* in that many definitions, such as 'variety', correspond to those in the *UPOV Convention*.

The *PBR Acts* fall under the control of the National Department of Agriculture, Land Reform and Rural Development (DALRRD). Although this is the most appropriate department to deal with matters concerning plant breeders' rights, the challenge remains to align various IP regimes with most IP laws that fall under the DTI, with the Biodiversity Act falling under the DEFF and the *IK Act* under the DSI. Furthermore, the *2018 PBR Act* also creates a statutory body.¹⁴⁴⁵ The alignment of these bodies will be crucial if the South African government is to optimise the country's GR and IP regimes while continuing to promote IKS.

5.12 National Environmental Management Biodiversity Act 10 of 2004

The *National Environmental Management Biodiversity Act 10 of 2004* (*Biodiversity Act*) provides, in the main, for the management and conservation of South Africa's biodiversity, the sustainable use of IBR, and fair and equitable benefit

¹⁴⁴³ See para 3.5.2 where the *UPOV Convention* is discussed.

¹⁴⁴⁴ Section 10(2) of the *PBR Act (2018)*. "i) The category or categories of farmers who may use the protected variety; ii) the category or categories of plants that may be used; iii) the uses to which the protected variety may be put; and iv) where applicable- (aa) conditions for payment of royalties; and (bb) labelling requirements".

¹⁴⁴⁵ Section 45 of the *PBR Act (2018)*.

sharing arising from bioprospecting.¹⁴⁴⁶ It is commendable that this piece of legislation states, as one of its objectives, "to give effect to ratified international agreements relating to biodiversity which are binding on the Republic",¹⁴⁴⁷ which is, of course, the *CBD*. The *UPOV Convention* and the *Nagoya Protocol* also contribute to the provisions of the *Biodiversity Act*. As pointed out in the discussion of other pieces of legislation, the inconsistent use of definitions remains a concern. The *Biodiversity Act's* draftsmen attempted to harmonise the definitions with those in the *Patent Act*, of which two are notable, namely 'genetic resources' and 'indigenous biological resources'.¹⁴⁴⁸

Chapter 6 of the Act deals with bioprospecting, access and benefit sharing (hereafter ABS), and is important to this thesis.¹⁴⁴⁹ More specifically, sections 80(1),¹⁴⁵⁰ 81 (permits), 82(1) (protection of stakeholders),¹⁴⁵¹ 82(3) (disclosure),¹⁴⁵²

¹⁴⁴⁶ Preamble of the *Biodiversity Act*.

¹⁴⁴⁷ Section 2(b) of the *Biodiversity Act*.

¹⁴⁴⁸ Section 1(1) of the *Biodiversity Act*. "'Genetic resource' means - (a) any indigenous genetic material; or (b) the genetic potential or characteristics of any indigenous species. 'Indigenous biological resource' means, (a) when used in relation to bioprospecting, means any indigenous biological resource as defined in section 80(2); or (b) when used in relation to any other matter, means any resource consisting of (i) any living or dead animal, plant or other organism of an indigenous (ii) any derivative of such animal, plant or other organism; or (iii) any genetic material of such animal, plant or other organism".

¹⁴⁴⁹ Chapter 6 of the *Biodiversity Act*.

¹⁴⁵⁰ Section 80(1) of the *Biodiversity Act*. "The purpose of this Chapter is to regulate bioprospecting involving indigenous biological resources; to regulate the export from the Republic indigenous biological resources for the purpose of bioprospecting or any other kind of research; and to provide for a fair and equitable sharing by stakeholders in benefits arising from bioprospecting involving indigenous biological resources".

¹⁴⁵¹ Section 82(1) of the *Biodiversity Act*. "Before a permit ... is issued, the issuing authority ... must protect any interests any of the following stakeholders may have in the proposed bioprospecting project: (b) an indigenous community (i) whose traditional uses of the indigenous biological resources to which the application relates have initiated or will contribute to or form part of (ii) whose knowledge of or discoveries about the indigenous biological resources to which the application relates are to be used for the proposed bioprospecting".

¹⁴⁵² Section 82(3) of the *Biodiversity Act*. "If a stakeholder has an interest as set out in subsection (1)(b), an issuing authority may issue a permit only if (a) the applicant has disclosed all material information relating to the relevant bioprospecting to the stakeholder and on the basis of that disclosure has obtained the prior consent of the stakeholder to use any of the stakeholder's knowledge of or discoveries about the indigenous biological resources for the proposed bioprospecting; (b) the applicant and the stakeholder have entered into a benefit-sharing agreement that provides for sharing by the stakeholder in any future benefits that may be derived from the relevant bioprospecting and (c) the Minister has in terms of section 83(2) approved such benefit-sharing agreement".

83 (benefit sharing agreements), 84 (material transfer agreements), and 85(1) (Bioprospecting Trust)¹⁴⁵³ have a direct bearing on IKS.

Of these clauses, one needs to understand bio-prospecting first and foremost. Malherbe¹⁴⁵⁴ neatly explains the phases of bio-prospecting: the discovery phase (where the nature and extent of any actual or potential commercial or industrial exploitation concerning the project is not clear); and the commercial phase (where the actual or potential commercial or industrial exploitation in relation to the project is sufficiently established). This differentiated approach has been well received by academic and commercial researchers, who are now able to conduct early-stage research on indigenous species with medicinal and other applications. In this regard, the responsible¹⁴⁵⁵ use of material-transfer agreements and benefit sharing agreements in the 'prescribed format'¹⁴⁵⁶ is welcomed.

In addition to the enactment of the *Biodiversity Act*, the *Patents Act* was also amended in 2005 to align these two pieces of legislation.

In summary, it would be fair to say that the drafters of the *Biodiversity Act* and related amendments were very successful with their efforts to align legislation with international law instruments, not only with the *TRIPS Agreement* but also with instruments that have a bearing on IKS. In the following three paragraphs, the focus will be on legislation in South Africa that is not yet in force but may have a significant influence on the IKS and IP and public domain discourse in South Africa.

Before we move to acts that are not yet in force in the next paragraph it should be pointed out that the last four acts that were discussed (ie *Patents Act*, *PBR Act*, *Designs Act* and the *Biodiversity Act*) received considerably less attention than the

¹⁴⁵³ Section 85(1) of the *Biodiversity Act*. "A Bioprospecting Trust Fund is established into which all moneys arising from benefit-sharing agreements and material transfer agreements, and due to stakeholders, must be paid, and from which all payments to, or for the benefit of stakeholders must be made".

¹⁴⁵⁴ Malherbe, *The bio-prospecting, access and benefit-sharing regulations* "Powerpoint presentation" (Department of Environmental Affairs and Tourism 2009) 9; Note that the Department of Environmental Affairs and Tourism (DEAT) has been restructured and is now the Department of Environment, Forestry and Fisheries (DEFF).

¹⁴⁵⁵ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 1.

¹⁴⁵⁶ Sections 83 and 84 of the *Biodiversity Act*.

Copyright Act and the *Trademarks Act*. These main reasons for this are spelled out in the respective paragraphs, but to ensure continuity the reader's attention is drawn to the main reason, namely that recent amendments to the acts were all done to comply with the *TRIPS Agreement*, which were advantageous to the TK and GR genera of IKS.

5.13 Indigenous Knowledge Acts not yet in force

There are two IKS-related Acts in South Africa that are not yet in force. Only the key legal aspects of these two pieces of legislation will be discussed. After that, the key issues of these two Acts are simultaneously compared because of the overlaps.

5.13.1 Intellectual Property Laws Amendment Act 28 of 2013

On 10 December 2013, the President assented to the *Intellectual Property Laws Amendment Act 28 of 2013* (hereafter *IPLA Act*). It will come into operation on a date to be fixed by the President by proclamation in the *Government Gazette*.¹⁴⁵⁷ This will take place after the necessary regulations have been drafted and approved.

The *IPLA Act* aims to recognise and protect certain manifestations of IK as a *sui generis* form of IP rights. To this end, four IP Acts, namely the *Copyright Act*, the *Trademarks Act*, the *Designs Act* and the *Performer's Protection Act*, are proposed to be amended.¹⁴⁵⁸ The *IPLA Act* also introduces statutory provisions to provide for the establishment of a National Council in respect of IK (NCIK), a national database for recording IK (NDIK), and a National Trust and Trust Fund (NTIK).¹⁴⁵⁹

New definitions were also introduced. Van der Merwe correctly points out that the *IPLA Act* uses various new definitions common to the four IP acts that have been amended.¹⁴⁶⁰ With reference to the *Trademarks Act*, he asks "whether traditional

¹⁴⁵⁷ *Patents Amendment Act (2005)*; Also see para 5.9.

¹⁴⁵⁸ Preamble of the *IPLA Act*.

¹⁴⁵⁹ Preamble of the *IPLA Act*.

¹⁴⁶⁰ Van der Merwe 'The Intellectual Property Laws Amendment Act no. 28 of 2013 and its application in respect of Trade Marks' <<http://www.kisch-ip.co.za/the-intellectual-property-laws-amendment-act-no-28-of-2013-and-its-application-in-respect-of-trade-marks/>> accessed 1 May 2018.

terms and expressions could not simply have been registered under the [Trademark] Act in its unamended form, namely as ordinary and collective marks".¹⁴⁶¹ This is but one comment on the definitions that are somewhat incoherently addressed in this new piece of legislation.

The definition of IPLC does not escape its fair share of controversy. Nwauche refers to the *Pillay* case¹⁴⁶² where the Constitutional Court indeed recognised communities organised along social, cultural, and economic lines rather than based on ethnicity or race. He proceeds to argue that although the definition of IPLC might be inclusive of all races in South Africa, the definition of TCE is not that clear and could be interpreted as applying only to black communities. Despite his concern, he successfully argues with reference to two court cases¹⁴⁶³ that there should be no reason why only TCE of IPLC organised along racial lines should be protected. Furthermore, social factors other than blood ancestry and race can define communities, and even religious communities should be recognised as capable of owning TCE.¹⁴⁶⁴

Nwauche has the rare ability to extrapolate conventional legal arguments into the IKS domain creatively. For example, he dissects the cases of *Century City*¹⁴⁶⁵ and *Swartland*¹⁴⁶⁶ to argue that if 'Century City' had become a geographical location and is "a community bound together by the social fact of common property" (as ruled by Harms J), then 'Century City' should also qualify as an IC in terms of the *IPLA Act*, "because it can clearly be characterised as cultural community".¹⁴⁶⁷ In summary, the use of the Trademark Act for IKS purposes is clear, but the definition of the ICs is problematic.

¹⁴⁶¹ Van der Merwe, 'The Intellectual Property Laws Amendment Act no. 28 of 2013 and its application in respect of Trade Marks' 11.

¹⁴⁶² *MEC for Education, KwaZulu-Natal v Pillay* para 50.

¹⁴⁶³ Nwauche referred to the following two cases, that are also discussed in para 5.6: *Century City Apartments Property Services CC and Another v Century City Property Owners Association; Groupe LFE (SA) (Pty) Ltd v Swartland Winery Ltd and Another* 2011 ZASCA 4 .

¹⁴⁶⁴ Nwauche *The Protection of Traditional Cultural Expressions in Africa* 134.

¹⁴⁶⁵ *Century City Apartments Property Services CC and Another v Century City Property Owners Association*.

¹⁴⁶⁶ *Groupe LFE (SA) (Pty) Ltd v Swartland Winery Ltd and Another* (*Swartland* case (SA)).

¹⁴⁶⁷ Nwauche *The Protection of Traditional Cultural Expressions in Africa* 134-136.

The following paragraph deal with another piece of new legislation, the *IK Act*. After this, legal issues with both pieces of legislation will be dealt with collectively and more comprehensively.

5.13.2 Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019

In 2019, the President assented to the *Protection, Promotion, Development and Management of Indigenous Knowledge Act 6 of 2019 (IK Act)*. It will come into operation on a date to be fixed by the President by proclamation in the *Government Gazette*.¹⁴⁶⁸ This will happen once the necessary regulations have been drafted and approved. This Act provides for the establishment and functions of the National Indigenous Knowledge Systems Office (NIKSO) and, an Indigenous Knowledge Advisory Panel (IKAP). It also provides for the protection, promotion, development, and management of IK and the rights of ICs.

5.13.3 Key legal problems arising from the Indigenous Knowledge Act and the Intellectual Property Laws Amendment Act

Although both the *IK Act* and the *IPLA Act* aim to promote IKS in South Africa, the reader's attention is drawn to anomalies and key differences between the two Acts. These anomalies will cause legal uncertainties, should these Acts come into effect without further consultation and amendments.

5.13.3.1 Different Government Departments' co-responsibility for IKS

The *IK Act*, designed by the Department of Science and Innovation (DSI),¹⁴⁶⁹ dates six years after the *IPLA Act* which was drafted by the Department of Trade and

¹⁴⁶⁸ *IK Act* preamble. "To provide for the protection, promotion, development and management of indigenous knowledge; to provide for the establishment and functions of the National Indigenous Knowledge Systems Office; to provide for the management of rights of indigenous knowledge communities; to provide for the establishment and functions of the Advisory Panel on indigenous knowledge; to provide for access and conditions of access to knowledge of indigenous communities; to provide for the recognition of prior learning; to provide for the facilitation and coordination of indigenous knowledge-based innovation; and to provide for matters incidental thereto".

¹⁴⁶⁹ DSI 2020 <https://www.dst.co.za>.

Industry (DTI).¹⁴⁷⁰ During this period, the same two departments initiated the *Copyright Amendment Bill*¹⁴⁷¹ and the *Performers' Rights Amendment Bill*,¹⁴⁷² both directly and indirectly impacting IKS. There is a clear need for alignment between the two government departments.

5.13.3.2 Definitions

The definitions in both Acts are inconsistent and not aligned with international law instruments and WIPO-ICG terminology. This complicates matters when the interpretation of these laws, read together with existing IP legislation, is required. Notably, the different definitions of IKE and IK in the *IPLA Act* and *IK Act*, respectively, are significant concerns. Another example of note regarding definitions relates to the 'tangible format' requirement in article 2(2) of the *Berne Convention*.¹⁴⁷³ In the *IPLA Act*, ICE is defined as "works, tangible or intangible",¹⁴⁷⁴ while the *IK Act* does not refer whatsoever to 'intangible'. In this regard the *IPLA Act* will not comply with the provisions of the *Berne Convention*, while the *IK Act* arguably might. These shortcomings were ironically pointed out by Visser even before the legislation was enacted.¹⁴⁷⁵

5.13.3.3 Statutory bodies

These two pieces of legislation create a total of five new statutory bodies. The *IPLA Act* creates three bodies: NDIK; NTIK; and NCIK,¹⁴⁷⁶ with specific powers granted to the NCIK concerning the *Copyright Act*, the *Trademarks Act*, the *Designs Act*, and the *Performers' Protection Act*.¹⁴⁷⁷ In addition to these three statutory bodies, the *IK Act* creates another two bodies: the NIKSO;¹⁴⁷⁸ and an IKAP.¹⁴⁷⁹ The underlying problem with these bodies is how the boundaries of authority and

¹⁴⁷⁰ dti 2020 <https://www.thedti.gov.za/>.

¹⁴⁷¹ *Copyright Amendment Bill (2018)*.

¹⁴⁷² *Performers' Protection Bill (2016)*.

¹⁴⁷³ This requirement has been discussed in para 3.2.2.1.

¹⁴⁷⁴ Section 3(f) of the *IPLA Act*.

¹⁴⁷⁵ Visser 2002 *S Afr Mercantile L J* 656.

¹⁴⁷⁶ Sections 4(28, C, I, L) of the *IPLA Act*.

¹⁴⁷⁷ Section 4(28M) of the *IPLA Act*.

¹⁴⁷⁸ Section 4 of the *IK Act*.

¹⁴⁷⁹ Section 7 of the *IK Act*.

mandates are to be demarcated. Here one needs to bear in mind that the existing IP regime in South Africa already has well-established statutory bodies such as the Companies and Intellectual Property Commission (CIPC) (which hosts the Registrar of Patents, Designs and Trademarks), SAMRO, and the SAHRA which fulfil most of the roles assigned to the new bodies.

5.13.3.4 IKS repositories

Currently the DSI manages NIKMAS, with ten regional projects that diligently populate the NRS. The *IPLA Act* provides for establishing additional IKS databases at the CIPC,¹⁴⁸⁰ while the *IK Act* provides for a Register of IK to be hosted by NIKSO.¹⁴⁸¹ It is recommended that the database and register should rather be held by the same repository and hosted by the same government department. In fact, the existing patent system ideally lends itself to the role of a repository which can provide the necessary anti-appropriation measures, which could, in turn, potentially reduce or eliminate biopiracy and any acts of misappropriation involving IKS.¹⁴⁸²

5.13.3.5 Indigenous biological resources

The two pieces of legislation address IBR in different ways. More specifically, the *IK Act* refers to natural resources (not GR, which is the international terminology). This could be an oversight, but since the *Patents Act*¹⁴⁸³ and the *Biodiversity Act*¹⁴⁸⁴ deal with IBR, it is, for the present, assumed that it was the intention of the legislator to address IBR in these two Acts. However, one cannot be too certain about this presumed oversight, as the *IK Act* explicitly recognises mineral deposits as part of natural resources, creating land-related issues and, second, conflicts with other legislation addressing natural resources.¹⁴⁸⁵

¹⁴⁸⁰ Sections 4(28C), 9(43D) and 12(53C) of the *IPLA Act*.

¹⁴⁸¹ Section 19 of the *IK Act*.

¹⁴⁸² Amechi 2015 *PER/PELJ* 3090.

¹⁴⁸³ Section 32(6) of the *Patents Amendment Act (2005)*; This clause amended the Patents Act to impose a new obligation on patentees to disclose the origin of GR before a patent will be granted.

¹⁴⁸⁴ Section 81 of the *Biodiversity Act*.

¹⁴⁸⁵ Section 1 of the *IK Act*.

5.13.3.6 New legal objects and juristic persons

Both Acts create new legal objects and juristic persons. For example, in the *IK Act*, IK is entrenched as property in terms of section 25 of the *Constitution*.¹⁴⁸⁶ In the *IPLA Act* new legal objects are created, namely, indigenous and traditional works.¹⁴⁸⁷ The *IPLA Act* also creates new juristic persons, namely ICs.¹⁴⁸⁸

The *Berne Convention* does not define 'author', and the two new acts' statutory creation of ICs as juristic persons who can be authors can as such not be criticised from an IKS policy development perspective. However, hypothetically IPLC can, on the basis of *droit moral* as entrenched in article 6^{bis} of the *Berne Convention*,¹⁴⁸⁹ claim ownership of sacred or secret knowledge, which is intangible, and by doing so effectively claim ownership of the public domain.

Nwauche joins the voices of Raath and Harms, who questions the ability of governments worldwide to identify the people who will be the bearers of these new rights. He points out the difficulty of defining and understanding the concepts of culture, beliefs, practices, and values shared by IPLC and recognising the legitimate organisational structures and social embeddedness that represent the members of such a community. He also alludes to the complexities around the "social construct or blood descent of a community, the language, the geographical contiguity, and the religion around which such community is organised".¹⁴⁹⁰

The identification of TK and TCE as new legal objects is also challenging – not because of the legal objects themselves, but because IPLC (once duly recognised) may hypothetically impose unjustified barriers to access knowledge, expand exceptions and limitations thereto, and in so doing narrow the public domain that should be accessible to all citizens of South Africa.

¹⁴⁸⁶ Section 9(2) of the *IK Act*.

¹⁴⁸⁷ Section 3(f, j) of the *IPLA Act*.

¹⁴⁸⁸ Sections 4(28D)(1), 9(43D)(3), 12(53C)(6) of the *IPLA Act*.

¹⁴⁸⁹ See para 3.2.2.3 where this matter was discussed.

¹⁴⁹⁰ Nwauche 2015 *Marq IP L Rev* 232.

5.13.3.7 Performers' rights

While the *IPLA Act* provides for mechanisms to address performing artists of IKU, the *IK Act* is silent on this and only defines IKU. It is not clear if this was an oversight on the part of the drafters of the *IK Act* or if they considered the *IPLA Act's* amendments to the *PP Act* adequate. The implications of the *IPLA Act's* amendments to the *PP Act* have already been considered elsewhere.¹⁴⁹¹

5.13.3.8 Constitutional matters

Some provisions of these two Acts may well be open to challenge in the Constitutional Court. Van der Merwe mentions one such provision in the *IPLA Act*, namely that indigenous designs' period of protection shall be "in perpetuity".¹⁴⁹² In 2019, the *IK Act* also included an evergreen clause in that "IK is protected for as long as it meets the eligibility criteria" as set out in the *IK Act*.¹⁴⁹³ Earlier, when the dangers that encompass monopolies were discussed, it was argued that the quid pro quo of a monopoly lies in the public domain.¹⁴⁹⁴ It is foreseen that this matter of perpetual rights will be contentious and challenged should these Acts proceed to be enacted.

5.13.3.9 Land

Lastly, in most instances, IKS of IPLC cannot be separated from their land and secret and sacred cultural values and beliefs.¹⁴⁹⁵ The *IK Act* does not refer to these concepts, while the *IPLA Act* only briefly refers to secret and sacred cultural values and beliefs.¹⁴⁹⁶ The omission of *terroir*¹⁴⁹⁷ is also noted in a country where the discourse on land, human rights, and IKS are intertwined.

¹⁴⁹¹ See para 5.8.

¹⁴⁹² Van der Merwe 2014 *Journal of Intellectual Property Law & Practice* 416; Van der Merwe refers to s 12(53E)(1)(b) of the *IPLA Act*. "S 12(53E)(1)(b). The duration of the registration of an indigenous design as set out in section 53(B)(5) shall be in perpetuity".

¹⁴⁹³ Sections 10(1 and 2) of the *IK Act*.

¹⁴⁹⁴ See para 3.3.1.1.

¹⁴⁹⁵ WIPO IGC Background Brief - No 1 1.

¹⁴⁹⁶ Sections 4(28C)(8)(e), 9(43D)(6)(e) en 12(53C)(6)(e) of the *IPLA Act*.

¹⁴⁹⁷ Okediji 2018 *Centre for International Governance Innovation* 1.

The reader is reminded that these two Acts have not yet been signed into law. Furthermore, the nine critical legal issues raised in connection with these Acts above are non-exhaustive and merely intended to demarcate the landscape and stimulate a debate around the IKS and IP and public domain discourse. With IP legislation now duly discussed, the move is towards other pieces of legislation that might be seen as irrelevant on sight value, but very relevant indeed, as will be shown henceforth.

5.14 National Heritage Resources Act 25 of 1999

The *National Heritage Resources Act* 25 of 1999 (hereafter *NHR Act*) manages South Africa's national heritage resources. It enables and encourages communities to nurture and conserve their legacy so that it may be bequeathed to future generations. The *NHR Act* expressly promotes "new and previously neglected research into our rich oral traditions and customs".¹⁴⁹⁸ The Act, inter alia, protects archaeological heritage and artefacts of cultural significance, such as in section 2.¹⁴⁹⁹ Perhaps of greater significance is the protection of living heritage. The *NHR Act* defines living heritage in section 2 as:

The intangible aspects of inherited culture, and may include - (a) cultural tradition; (b) oral history; (c) performance; (d) ritual; (e) popular memory; (f) skills and techniques; (g) indigenous knowledge systems; and (h) the holistic approach to nature, society and social relationships.¹⁵⁰⁰

Raath and Brits are among IKS scholars who have written about the *NHR Act*. While welcoming the Act's aims, they point out that claims to ownership of culture by certain IPLC may lead to unintended consequences when living culture is promoted under the *NBR Act*.¹⁵⁰¹ Cultural heritage cannot be negated in the IKS discourse, as

¹⁴⁹⁸ Preamble of the *National Heritage Resources Act*.

¹⁴⁹⁹ Sections 2(ii, vi & xxix) of the *National Heritage Resources Act*. "'Cultural significance' means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance. Rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency [and] movable property of cultural significance which may be protected in terms of any provisions of this Act, including - (a) any archaeological artefact".

¹⁵⁰⁰ Section 2(xxi) of the *National Heritage Resources Act*.

¹⁵⁰¹ Raath and Brits 2018 *TSAR/JSAL* 741.

has been seen when the Timbuktu manuscripts were discussed.¹⁵⁰² This thesis is in favour of promoting a living culture approach. Ironically, in the time we live, the current pandemic resulted in a new type of knowledge revolution among museums, all going digital and disseminating cultural heritage as a living culture. This exciting development falls outside the scope of this study but cannot be ignored as a possible future excursion to understand the public domain better. For now, it is comforting that Australia, one of the countries analysed in this study, successfully transformed its museums to be inclusive. For example, in a recent study by Future Museums, Australia's Museums Victoria, incorporating Bunjilaka Aboriginal Cultural Centre, developed a Digital Transformation Strategy to go "beyond [museum's] walls"¹⁵⁰³ and give greater public access to digital content worldwide – indeed a way to embrace the public domain.

5.15 Intellectual Property Rights from Publicly Financed Research and Development Act 51 of 2008

Like many developing countries, South Africa responded positively to the *TRIPS Agreement* by tightening IPR protection regimes. Recent legislation, for example, the *Intellectual Property Rights from Publicly Financed Research and Development Act 51 of 2008 (IPR Act)*, attempts to align South Africa's policies with international standards, notably the USA's *Bayh-Dole Act*.¹⁵⁰⁴

The specific object of this piece of legislation is that IP emanating from publicly financed research and development should be commercialised for all South Africans, "whether it be for a social, economic, military or any other benefit",¹⁵⁰⁵ and protected from appropriation. The *IPR Act* further provides an enabling environment for IP creation, protection, management, commercialisation, and utilisation.¹⁵⁰⁶

¹⁵⁰² See para 4.6.

¹⁵⁰³ Mairhofer *CASE CARDS. Which digital strategies make sense in a museum and how can they enhance analogue formats?/how can digitalisation be integrated in a sustainable way in the organisational structure of museums?* 31.

¹⁵⁰⁴ *Bayh-Dole Act (USA)*.

¹⁵⁰⁵ Section 2(1) of the *Intellectual Property Rights from Publicly Financed Research and Development Act 51 of 2008*.

¹⁵⁰⁶ Section 2(2) of the *IPR Act (2008)*.

The *IPR Act* also entrenches the rights of IP creators and their heirs to benefit sharing.¹⁵⁰⁷ This aspect is to be welcomed since many research institutions¹⁵⁰⁸ in South Africa are collaborating with IPLC, and access to GR and benefit sharing is critical. It needs to be said that academics experience similar challenges as IPLC. Therefore, the *IPR Act's* objectives are very similar to those of the *IK Act*, save for the fact that public institutions are well defined and well regulated. In this regard, the *IK Act* can learn from the *IPR Act* in that it does not overregulate but merely attempts to strike a balance between the public domain and IP belonging to public institutions – or in academic lingo – the balance between 'publish or perish' versus 'to patent' in an ever-expanding public domain.

5.16 Medicines and Related Substances Act 101 of 1965

The *Medicines and Related Substances Act 101 of 1965 (MRSC Act)* essentially provides for the regulation of medicines and related substances intended for human and animal use and for the establishment of the South African Health Products Regulatory Authority (SAHPRA), formerly known as the Medicines Control Council (MCC) and the Directorate of Radiation Control (DRC).¹⁵⁰⁹

The *MRSC Act* has not escaped controversy, as is evident from the various attempts by the legislator to amend the Act, as well as local and international lobby groups that fiercely challenged the legislation in the courts. The chronological development of the controversy is briefly set out below,¹⁵¹⁰ as well as the paragraph on the

¹⁵⁰⁷ Section 10(2) of the *IPR Act (2008)*.

¹⁵⁰⁸ Schedule I of the *IPR Act (2008)* provides a non-exhaustive list of these institutions.

¹⁵⁰⁹ Section 2(1) of the *MRSC Act*.

¹⁵¹⁰ Chronological amendments to the *MRSC Act*: The *MRSC Act* was first amended by the *Medicines and Related Substances Control Amendment Act 90 of 1997 (MRSCA Act)*. The *MRSCA Act*, was subsequently repealed by the South African *Medicines Devices Regulatory Authority Act 132 of 1998 (the MMDRA Act)*. Except for ten sections, one of which is the controversial section 10 which introduced section 15C into the *MRSC Act*. The *MRSC Act* itself was also repealed by the *MMDRA Act*, except for seven sections. The *MMDRA Act* was promulgated with effect from 30 April 1999, but its promulgation has been set aside in an appeal heard by the full bench of the Pretoria High Court case A819/99. The original *MRSC Act*, as it applied on 29 April 1999, was then reinstated. Thereafter the *Medicines and Related Substances Amendment Acts of 2002, 2008 and 2015* were promulgated and came into force in 2017.

TRIPS Agreement.¹⁵¹¹

Of relevance to this thesis is what the government intended with the amendment of the *MRSC Act* and the nature of the controversy that emerged because of the attempts to amend it.¹⁵¹² The amendments aimed to reduce drug prices by allowing generic substitution of off-patent drugs, the parallel importation of on-patent drugs, and price transparency. On the one hand, lobby groups and activists argued that the government should guarantee free access to medicine for epidemic diseases. On the other hand, the pharmaceutical industry and developed countries argued that the amendments contravened international patent treaties and the *TRIPS Agreement*.¹⁵¹³

Since this controversy, more than two decades have passed, with India taking the lead with similar legislation.¹⁵¹⁴ In the USA, it has been proven that the screening of plants increased efficacy rates by more than 400 per cent.¹⁵¹⁵ In Canada, where the Institute for Complementary and Alternative Medicine at Vancouver Hospital explores traditional Chinese medicine,¹⁵¹⁶ the benefits of traditional medicine have also been accepted. These international developments indicate the South African legislator's opportunity to amend the *MRSC Act* to provide for traditional medicines without compromising on non-negotiable safety, ethical and health-care considerations.

5.17 Merchandise Marks Act 1941

The virtually forgotten and outdated *Merchandise Marks Act* has limited but relevant application to IP and IKS. In recent years, the Act has twice been put to good use, and its far-reaching influence cannot be ignored. The first notable positive use of the Act was before the 2010 Soccer World Cup, when the '2010 FIFA World Cup'

¹⁵¹¹ See para 3.7.

¹⁵¹² See para 3.7.5 above on the *TRIPS Agreement (1994)*, where this matter is discussed.

¹⁵¹³ Nash 2000 *Berkeley Technology Law Journal* 486.

¹⁵¹⁴ See para 4.3.

¹⁵¹⁵ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 8.

¹⁵¹⁶ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 10.

was designated by the responsible Minister as a protected event¹⁵¹⁷ – the '2014 African Nations Championship South Africa' followed suit. The second instance was when the Rooibos Council used this Act to protect and provide rules for certain aspects related to the use of Rooibos and its variants red bush, *rooibostee*, rooibos tea, *rooitee*, and *rooibosch*.¹⁵¹⁸ Honeybush, Heuningbos, Honeybush tea and *Heuningbos tee*, and Karoo lamb followed suit.¹⁵¹⁹ Nwauche says that these steps taken by the South African government to protect terms that identify agricultural products from specific regions of South Africa reflect its desire to protect indigenous terms and expressions of folklore. The *Merchandise Marks Act* thereby (unintentionally) assumed the function as a GI protection instrument through a collective trademark paradigm.¹⁵²⁰ The simplicity and finality of protection offered by the *Merchandise Marks Act* to IKS appears to be hugely attractive – and more so if collective certification marks for IPLC are considered.

5.18 Concluding remarks on South Africa

In this chapter a legal analysis of South African legislation in relation to IKS has been conducted. The chapter first contextualised the *Constitution*, whereafter related legislation and recent Bills pertaining to IP and IKS were analysed. This analysis was done within the framework of the international law instruments that were analysed earlier and the way other countries deal with the public domain, IKS and IP.

¹⁵¹⁷ Sections 15A and 15 of the *Merchandise Marks Act*, GN 683 in GG 28877 of 2006; The "2014 African Nations Championship South Africa" was later also added as a protected event.

¹⁵¹⁸ Van der Merwe 2014 *Journal of Intellectual Property Law & Practice* 417; GN 911 in GG 36807 of 2013; These rules are: "The name Rooibos may only be used to refer to the dry product, infusion or extract that is 100 % pure Rooibos derived from *Aspalathus linearis* and that has been cultivated or wild-harvested in the geographical area as described in this application. Rooibos may be blended with teas, infusions and other products but the labelling must conform with the rules applicable to labelling of products in the territory where the product is marketed. For example, to carry the product designation Rooibos a product must contain 100 % *Aspalathus linearis*, and if in a blended form, the exact percentages of the ingredients must appear on the label/package. Following guidance from SARC, other products, such as, extracts, soaps, cream, yoghurts, liquor, etc may be called 'Rooibos' only if they contain Rooibos and on the conditions that 'Rooibos' (or *Aspalathus linearis*) appears on the list of ingredients and it can be proven that Rooibos adds to the characteristics of the product".

¹⁵¹⁹ GN 988 in GG 96984 of 2013; GN 1073 in GG of 2013.

¹⁵²⁰ Nwauche 2015 *Queen Mary Journal of Intellectual Property* 221-223.

It has been shown that in general, South African legislation on IP is well aligned with international law instruments, particularly the *TRIPS Agreement* and the *CBD*. This finding on the alignment with international law instruments assists with the research question at hand and was instrumental with coming to the early conclusion that IKS neatly fits into South Africa's current IP regimes and their associated public domains. Regarding other countries it was found that although much can be learned from their respective approaches to IKS, a country specific approach remains crucial, with the proviso that alignment is sought from international law instruments, as WIPO-IGC pointed out on numerous occasions. With these insights gained the *Constitution* was used to test IP related legislation against the Bill of Rights. It was consistently pointed out that all genera of IKS not only find protection under the *Constitution*, but that IP related legislation can, with minor changes accommodate all genera of IKS. Furthermore, it was also found that the opportunity to amend IP related legislation should not overlook the importance of pieces of legislation that might, on face value, seem to be irrelevant– the *NHR Act* and the *Merchandise Mark Act* comes to mind. It will contribute to a more comprehensive approach. This possibility is a huge benefit that should be utilised to unlock the value of IKS in South Africa. The recommendations that follow in the next chapter aims to do so.

Recent efforts by the legislator to develop IKS-related legislation are commendable. Unfortunately, it has been pointed out that the *IK Act*, *IPLA Act* and the *Copyright Amendment Bill* are misaligned and driven by different government departments, which is not helpful. The next chapter will make some recommendations to align these commendable efforts. In 1996, South Africa was able to produce a *Constitution* that is not only aligned with international law instruments but also trendsetting. There is no reason why South Africa cannot do the same with IKS.

CHAPTER 6 CONCLUSION AND RECOMMENDATIONS

6.1 Chapter overview

This chapter aims to conclude with the main research question: "What are the appropriate legal instruments for protecting Indigenous Knowledge Systems in South Africa without compromising the public domain?"

It also summarises various scholars, international organisations and governments' legislation and policies regarding the most appropriate legal protection for IKS. It has been shown that worldwide there are three diverse schools of thought that advocate different approaches regarding the most appropriate legal protection for IKS, namely:

- IKS fits into the current IP regimes and the associated public domains;
- a *sui generis* approach for IKS is required; or that
- IKS is not suitable for IP protection.¹⁵²¹

Three principles were defined and then aligned with international law instruments to better understand these different approaches, notably the *Berne Convention*, the *Paris Convention* and the *TRIPS Agreement*. These principles are: differentiate IKS; acknowledge property rights in IKS; and demarcate the limitations of IKS rightsholders within a public domain.

These principles were applied as follows: First, following the recommendation of the WIPO-IGC, IKS need to be differentiated between TK, TCE and GR.¹⁵²² This differentiation also allows for a more clinical approach towards the land on which IKS were created or discovered. This principle was applied when the selected countries and South Africa's IKS were analysed.

Second, of critical importance is stakeholders' appreciation of the way IP rightsholders perceive ownership and the legal protection of IKS. Therefore it is

¹⁵²¹ See para 1.4.

¹⁵²² See para 3.6.

critical to identify the legal objects and juristic persons that are eligible for ownership of TK, TCE and GR.¹⁵²³

Third, property rights in TK, TCE and GR can be communally, collectively or individually held. Therefore, the recognition of customary laws and protocols is required. The land on which TK, TCE and GR were created or discovered was also considered. The Okediji four-tier approach for the protection of IKS was therefore applied.¹⁵²⁴

Lastly, effective legal recourses for the defence of the alleged infringement of proprietary TK, TCE and GR also need to be in place, hence, the strong focus on the selected countries and South Africa's current legislative frameworks.¹⁵²⁵

Throughout the thesis, the rights and obligations of IKS rightsholders were demarcated since no right is absolute, as has been shown when the South African *Constitution* was discussed.¹⁵²⁶ In this regard, the *droit moral* of individuals from IPLCs, as well as the IPLCs, are to be respected. This approach led to more practical measures to ensure that matters such as prior informed consent, secrecy and sacredness, equity and access to TK, TCE and GR and benefit sharing were all understood within the boundaries of the public domain.

This chapter will start by summarising the previous chapters, starting with Chapters 1 and 2 where the fundamentals of the public domain were discussed while drawing on South African case studies to contextualise the challenges related to this research. After that the importance of recognising international law instruments will be re-emphasised. Then country-specific approaches in respect of IKS will be summarised, which will be followed by the South African position on IKS. The latter part of this chapter aims to make specific recommendations to improve current legislative reforms and policy development in respect of IKS in South Africa,

¹⁵²³ See paras 5.4 and 5.5 where this was done for South Africa. It has also been done for the other countries that were analysed, but in a more general way.

¹⁵²⁴ See Table 3-1 in para 3.2.2.

¹⁵²⁵ See para 4.2.6 where it is illustrated how successful Austria is with the enforcement of IKS in their courts.

¹⁵²⁶ See para 5.2.2.

based on the conclusion that the existing South African IP regime can be suitably adapted to accommodate IKS (i.e. the first school of thought above).

6.2 *The public domain*

Chapters one and two discussed the public domain in depth. In Chapter 1 challenges were identified when the South African Coat of Arms, Rooibos, the *Mbube* song and medicinal plant examples were considered.¹⁵²⁷ These examples attest to the vulnerable position in which IPLCs find themselves when it comes to the sacred, legal, cultural, and commercial protection of their IKS in South Africa, and how the boundaries of the public domain are challenged. These examples also attest to the notion that the IP and IKS regimes are not the exclusive domains of rightsholders in technologically advanced societies or those of IPLCs. Rather, both regimes function within a public domain where multiple stakeholders are present.

Many scholars studied the public domain. From Boyle's perspective, each new era has a set of ideas about knowledge where information bore a different relation to knowledge and to property. Brown, speaking from an IKS perspective, would have added the question: "Who owns culture?" In the time of Fleming, it was part of the British ethical and cultural outlook not to consider patenting living organisms, while the USA held different views on the same topic. In our era of IKS, not much has changed regarding these hypothetical questions if Fleming can be regarded as a traditional healer, save for, as Brown advocates, the fundamental matter of dignity. The crux of this IKS problem does not lie in irreconcilable views of ownership of IP or IKS per se but the respectful understanding of the social embeddedness of native cultures within a global public domain.¹⁵²⁸

6.3 *International law instruments*

In Chapter 3 it has been shown that the existing international law instruments, as well as the natural evolution of these instruments over time, adequately provide

¹⁵²⁷ See para 1.1.

¹⁵²⁸ See para 2.2 where Boyle, Brown and other authors' perspectives on the public domain was discussed.

for the protection and commercial exploitation of IKS worldwide. There is a proviso, though: IKS need to be viewed through the evolving WIPO lens, which provides for the distinct delineation of categories of IKS, namely TK, TCE and GR.¹⁵²⁹ During the analyses of the respective international law instruments, it has been pointed out that, in the main, many of these instruments are suitable to address IKS-related challenges.

The *Bern Convention* is founded on the three principles of *droits des auteurs*, *droit moral*, and *domaine public*.¹⁵³⁰ The boundaries of the public domain within the context of IKS can be reconciled with all three of these principles, and national legislators merely need to apply these principles to national legislation. Many authors confirmed that the *Berne Convention* has indeed stood the test of time, since the three-step test and the implied delineation of the public domain also manifests in other international law instruments, such as the *TRIPS Agreement*, the *WCT*, the *WPPT*, as well as the European *InfoSoc Directive*. In this regard, one author needs special recognition. Okediji proposes a four-tier approach to strike a balance between the public domain and IKS. Under this tiered approach, she recommends that article 9(2) of the *Berne Convention* (i.e. the three-step test) should be revised since, if the test is correctly applied, many of the fears of IPLC can be adequately addressed.¹⁵³¹

The *Paris Convention* and its fellow instruments adequately provide for the protection of industrial property, be it patents, marks or designs, as well as the incorporation of GR within the current patent regime.¹⁵³² Also, under strong French influence, these instruments appreciate the importance of *terroir*. Nuanced approaches by civil law and common law countries, notably on how *terroir* is perceived, make these instruments challenging to harmonise in respect of IKS; therefore, country-specific approaches are required. For example, Australia is 14 times larger than France, and Namibia is the oldest desert in the world – it is,

¹⁵²⁹ See para 3.6.

¹⁵³⁰ See para 3.2.

¹⁵³¹ See Table 3-1 in para 3.2.2.

¹⁵³² See para 3.3.

therefore, difficult to comprehend how Australia or Namibia can use *terroir* as successfully as the French.

From the *Rome Convention* and its fellow instruments, one can see that performers of folklore are adequately protected, be it a traditional ceremony or any other performance.¹⁵³³ The challenge related to sacred and secret ceremonies remains, but the discussed instruments leave room for country-specific solutions. The *Rome Convention* and its fellow instruments furthermore appreciate how TCE can be protected, more so in the digital age in which we live.

The *TRIPS Agreement* proved to be a powerful instrument in the hands of developing countries, as India and South Africa's collective efforts in health-care proved to be the case. It will remain an unanswered question as to how developing countries can utilise the *TRIPS Agreement* to unlock value in respect of traditional medicine.¹⁵³⁴

The human rights instruments that were evaluated are helpful in bridging the divide between developed and developing countries. None of these human rights instruments was helpful to solve IKS-related issues posed in this thesis unless a country has a Constitution with a Bill of Rights, which is the case in South Africa. South Africa, therefore, has the opportunity to use its constitutional framework to become a world leader in the IKS discourse, should a human rights approach towards IKS be adopted.¹⁵³⁵

The important work of the WIPO-IGC has been shown, notably its evolving four-tiered approach for the protection of IKS of the WIPO-IGC, which relates to degrees of openness to the public, namely secret traditional knowledge, sacred traditional knowledge, closely held traditional knowledge and widely diffused traditional

¹⁵³³ See para 3.4.

¹⁵³⁴ See para 3.7.

¹⁵³⁵ See para 3.8.

knowledge. Three authors refined the four-tiered approach, namely Okediji, Oguamanam and Macmillan.¹⁵³⁶

Okediji argues that one needs to differentiate between the WIPO-recognised IKS categories, GR, TCE, and TK, but also utilise GI and AOO for each of these tiers. Furthermore, appropriate IKS-specific limitations and exceptions could also be utilised. In this regard, Okediji clarifies that if one wants to enhance the utilisation of traditional knowledge to improve human welfare, the public domain must be broadened without any threat to IKS. Oguamanam reminds the reader that the diffusion of TK and TCE can be a function of the public domain. However, TK and TCE in the public domain are not necessarily publicly available. Macmillan's model is derived from a cultural property versus intellectual commons perspective. Finally, these tiered approaches cannot be effective unless the territoriality of the public domain is recognised and for this to happen, international law instruments need to be utilised. In this regard, it has been shown that Okediji utilised the three-step test that originates from the *Berne Convention*. She indeed completed the full circle, essentially confirming that IKS is not different and that existing international law instruments can all be utilised to effectively protect IKS without compromising the public domain. These tiered approaches are summarised in the Table below, with an additional view of the present author.

Table 6-1 Tiers of traditional knowledge and traditional cultural expressions

Tier one	Tier two	Tier three	Tier four	Tier Five
Original five tiers of the WIPO-IGC¹⁵³⁷				
Secret	Sacred	Closely held	Narrowly or partially diffused	Widely diffused
Four tiers of the WIPO-IGC¹⁵³⁸				
Secret	Sacred	Closely held	Widely diffused	

¹⁵³⁶ See Table 6-1 below.

¹⁵³⁷ Oguamanam 2019 *African Journal of Information and Communication* 9.

¹⁵³⁸ Oguamanam 2019 *African Journal of Information and Communication* 10.

Tier one	Tier two	Tier three	Tier four	Tier Five
Okediji ¹⁵³⁹				
Secret & sacred Economic and moral rights applicable Aligned with trade secrets, existing patent- and unfair competition law	Closely held Integrated into cultural heritage of indigenous peoples. Access to IKS managed by leaders of indigenous peoples	Widely disseminated Only the right of attribution is acknowledged, since the source of origin is still identifiable	Generic Complete dislocation of source and well known among many groups	
Macmillan ¹⁵⁴⁰				
		Communal cultural rights Promoting freedom and space for creativity, innovation, invention, and cultural conservation	Intellectual commons	Intellectual commons ripe for appropriation
Oguamanam ¹⁵⁴¹				
Secret	Sacred	Closely held	Widely diffused	
Different degrees of secrecy and sacredness can be identified			Diffusion into the public domain	
Verhoef ¹⁵⁴²				
Secret IKS does not enter the public domain	Sacred <i>Droit moral</i> of communities and individual creators of IKS respected	Closely held IKS Databases widely used IP instruments amended for IKS	Widely diffused IKS is in the public domain	

¹⁵³⁹ Okediji 2018 *Centre for International Governance Innovation* 15, 16.

¹⁵⁴⁰ Macmillan "Human Rights, Cultural Property and Intellectual Property: Three concepts in search of a relationship" 95.

¹⁵⁴¹ Oguamanam 2019 *African Journal of Information and Communication* 15.

¹⁵⁴² These are the author's own views.

6.4 Selected countries

An analysis of the legal systems of Australia, India, and Mexico was conducted. Furthermore, on the African continent, two brief excursions were undertaken in respect of Namibia and Mali. This approach enabled the research to advance to where civil and common law practices in the respective countries could be compared. The second benefit of the selected countries relates to the insights gained with the analyses of the different approaches to IKS by developing and developed countries.

6.4.1 Australia, India and Mexico

Australian jurisprudence developments proved agile enough to find the balance between legislation, common law, and customary laws of ICs in relation to land and ownership of IKS, to name but two examples. As a result, Australia does not need a *sui generis* system for IKS, to answer the secondary research question of this thesis.¹⁵⁴³ Janke does find her way through IKS challenges in Australia and concludes that the Aboriginal and Torres Strait Australians simply want to be respected. In this regard, she proposes that Australian IKS policies and laws must impact existing IP and other legal frameworks and that these interventions should address the regulated access to IK as well as open-source content, fair use of IKS, public accessibility and finally, to promote and maintain a healthy public domain.

India has a long history of codifying knowledge, dating back to the ancient Vedic scriptures. This culture of transferring knowledge in a tangible format places India well in the IKS discourse, as is evident from how they codified yogic *asanas* and used their TKDL to manage novelty claims by patent seekers worldwide. As in Australia, India does not need a *sui generis* system for IK. The reason is different. India's strong commercial approach towards IKS resulted in this finding, as opposed to Australia, whose jurisprudential developments led to the same conclusion.¹⁵⁴⁴ In India, traditional and contemporary artists, traditional weavers, artisans, and local

¹⁵⁴³ See para 4.2.9.

¹⁵⁴⁴ See para 4.3.9.

farmers are all traders who realise that no traditional skill can be sustained unless their products have a viable market. In the digital age, this is also true of creative performers, with reference to the international success stories of the Bollywood film industry that essentially disseminates Indian cultural life in the public domain. India appreciates that the effective protection of IKS, international cooperation, and national initiatives are essential. As Sunder suggests, reasons for this approach can be seen in the large numbers of the Indian population living in abject poverty, coupled with the country's resilience in having survived many cycles of famine.

Although the analysis of Mexican IKS sheds light on many IKS-related challenges in South America, notably cultural appropriation, there is no concluding evidence found that a *sui generis* system in Mexico is the most appropriate way to protect and exploit IKS. Mexico furthermore leans towards the Indian pragmatic and commercial approach towards IKS. Mexico's support of a bilateral international instrument, for example the agreement between the European Community and the United Mexican States on the mutual recognition and protection of designations for spirit drinks, is arguably the most important instrument to protect Mexico's IKS and related export market. With the signing and compliance with this instrument, Mexico recognises the international playing field in which the country is required to protect and promote its IKS in the best interest of its people, including its IPLC.¹⁵⁴⁵

6.4.2 African countries

Both African countries that were discussed deserve a more dedicated international research effort on IKS-related matters. Namibia's willingness to pursue a regional approach towards IKS and its open mind towards a possible *sui generis* solution to IKS is commendable.¹⁵⁴⁶ Developed countries should support Mali's efforts to preserve ancient history using museums and databases.¹⁵⁴⁷ However, both countries lack the financial resources to do so.

¹⁵⁴⁵ See para 4.4.8.

¹⁵⁴⁶ See para 4.5.

¹⁵⁴⁷ See para 4.6.

6.4.3 *Droit moral*

Droit moral deserves special mention because this French concept of moral rights strongly manifests in many sacred and secret aspects related to IKS in all the countries that were analysed. For example, both India and Australia were relatively late in accepting *droit moral* in their copyright regimes. Both borrowed from the French in this regard because the colonial British inherited by India and Australia did not recognise this legal doctrine. On the other hand, Mexico relied on its culture's *droit moral* to enforce some of its IKS rights in the fashion industry. In South Africa, *droit moral* manifests itself in most international law instruments to which South Africa is a signatory. This, together with South Africa's Bill of Rights, puts South Africa in a favourable position to deal with most IKS-related issues.¹⁵⁴⁸

6.5 *Three legal approaches to indigenous knowledge systems*

Now that the respective chapters of this thesis have been summarised, the three approaches to dealing with IKS, which are repeated for ease of reference, can briefly be summarised:

- IKS neatly fits into the current IP regimes and the associated public domains;
- a *sui generis* approach for IKS is required; or that
- IKS is not suitable for IP protection.

6.5.1 *Approach 1: IKS neatly fits into the current IP regimes and the associated public domains*

This approach is overwhelmingly supported in this thesis. The main reason for supporting this approach is that over the years, international law instruments proved to be resilient, a matter that was extensively analysed in Chapter 2, which inter alia led to Boyle's remark that legal problems related to the public domain reappear in each new era.¹⁵⁴⁹ South Africa is a signatory to most international law instruments that have a bearing on IKS, and it has been shown in Chapter 3 that extrapolating

¹⁵⁴⁸ *Droit moral* was also discussed in para 3.2.2.3 when the *Berne Convention* was analysed.

¹⁵⁴⁹ See para 3.9.

these instruments' principles into existing legislation is indeed possible. In fact, recent amendments to the *Patents Act* are testimony hereof.

This approach has so far already been adopted by the South African legislator, with recent amendments to the *Patents Act*, the enactment of the *Biodiversity Act*, the new *IK Act* and *IPLA Act*, both of which are yet to come into force, and lastly the *Copyright Amendment Bill* and the *Performers' Rights Amendment Bill*, both currently under review. The main criticism against the legislator has already been spelled out in that two different government departments, the DTI and DSI, are taking the lead without being aligned with each other, resulting in anomalies.¹⁵⁵⁰

To further illustrate this approach, the tiered approach followed by some authors is briefly mentioned in the paragraph below.

6.5.2 Approach 2: a Sui generis approach for IKS is required

The WIPO-IGC makes a strong case that IKS could be protected by *sui generis* systems, taking cognisance of the objective of the protection and identifying the subject matter to be protected. Many scholars also write about a *sui generis* model for IKS, of whom Sinjela is one.¹⁵⁵¹ He argues that a comprehensive and combined approach is required where existing IP mechanisms are called into play to protect TK while developing *sui generis* rights for TK. Unfair competition based on misleading or culturally offensive references to TK for commercial purposes should be eradicated. TK should be recognised as a right by governments. The principle of prior informed consent by TK rightsholders and equity and benefit sharing provisions should be entrenched in legal systems. National regulatory provisions should be in place. The form of legal protection in a country should be adapted to the nature of TK. There should be effective and appropriate remedies in place for the misappropriation of TK. TK and related customary uses should be safeguarded in a way in which the use of TK is encouraged and not suppressed by IP protection

¹⁵⁵⁰ See para 5.13.3.

¹⁵⁵¹ Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights* 14.

measures. Lastly, there should be consistency in respect of access to TK and benefit sharing.

Janke is more pragmatic when she supports a *sui generis* model in Australia, saying that "*sui generis* protection is a long term goal and that there are practical options that can be done immediately". Janke, with reference to India's successful TKDL, also points out that the widespread use of databases could provide the basis for a *sui generis* database right for IPLCs. The use of database is fully supported in this thesis, but with the understanding that this powerful tool should be supplementary.¹⁵⁵²

6.5.3 Approach 3: IKS is not suitable for IP protection

The arguments put forward in support of this approach can be distilled to Wendland's remarks that IKS rightsholders want the right to control disclosure of IKS, retain the right to use of their knowledge, benefit sharing, acknowledgement, and the right to prevent derogatory, offensive, and fallacious use of IKS. All these claims stem from historical injustices, as pointed out by authors such as Sinjela and others. Be that as it may, all these claims can be accommodated in approach one above.

6.6 South African legislative framework

In general, it has been found that existing South African legislation pertaining to IP is well aligned with international law instruments, notably the *TRIPS Agreement*¹⁵⁵³ and the *CBD*.¹⁵⁵⁴ This huge benefit should be utilised to unlock the value of IKS in South Africa. It has been shown that the main critic against the South African legislator's recent attempts to address IKS is the lack of alignment between the respective government departments, i.e. the DSI and DTI, regarding IKS. This lack of alignment resulted in the *IK Act* and *IPLA Act* being incompatible.¹⁵⁵⁵ Lastly, the

¹⁵⁵² Janke and Sentina *Indigenous Knowledge: Issues for protection and management* 14, 92.

¹⁵⁵³ See para 3.7 in relation to South Africa.

¹⁵⁵⁴ See 5.12.

¹⁵⁵⁵ See 5.13.

opportunity to amend IP-related legislation to provide for IKS protection should not overlook the importance of pieces of legislation that might, on face value, seem irrelevant, such as the *NHR Act* and the *Merchandise Mark Act*. The recommendations below speak directly to this objective.

6.7 Recommendations

The recommendations that follow are based on the main conclusion of the thesis, namely that the most appropriate legal way to protect and exploit IKS in South Africa without compromising the public domain are amendments to existing legislation.

6.7.1 Legislative reforms

Bearing all these notions of the public domain in mind, there is a clear need for governments to provide certainty on the traditional and/or private ownership of IKS, to create meaningful legislative frameworks and incentives for TK, TCE and GR rightsholders to come forward and disclose their knowledge, and to collaborate with researchers and trade and industry for their development and wealth generation activities. Legislative reforms are therefore proposed for the following Acts: The *Patents Act*, *Trade Marks Act*, *Copyright Act*, *PP Act*, *Designs Act*, *PBR Act*, *NHR Act*, *MRSC Act*, *Merchandise Marks Act* and the *Biodiversity Act*. Only minor amendments are proposed, all aligned with the thesis' main conclusion that the current IP regime could be adapted for IKS purposes.

The proposed manner to effect these recommended legislation changes is for the DSI and DTI, as a first step, to withdraw the current *IPLA Act*, *IK Act* and the *Copyright Amendment Bill*. The first step is to ensure that the respective government departments will have the opportunity to align their objectives in respect of IKS. This alignment should essentially focus on the differentiation of TK, TCE and GR, as the WIPO-IGC does, which will significantly contribute to avoiding unnecessary interpretation issues and legal disputes. Furthermore, the DTI, in consultation with other government departments, should take the lead in drafting a new IKS Bill. This is proposed because most IP-related legislation falls under the

auspices of the DTI. The format of the IKS Bill could be like the current *IPLA Act* but should also include matters not currently addressed in the *IPLA Act*, but in the *IK Act*. The name should be the new *TK, TCE and GR Act* – note the subtle difference – it should not be called the *IK Act*.

In addition to amendments to IP-related legislation in the proposed IKS Bill, the following three Acts are also to be aligned: the *MRSC Act*, the *Merchandise Marks Act* and the *National Heritage Resources Act*. It is fully appreciated that amendments to the *MRSC Act* to address traditional medicinal knowledge will be far more complex due to the nature of this highly regulated environment – the proposed strategy will, however, create a conducive environment where proposed amendments to the *MRSC Act* will be eased. The same applies to the *Merchandise Marks Act* and the *National Heritage Resources Act*, which lend themselves to the protection of GI, TCE, and IPLC's cultural heritage.

Some specific matters that need to be addressed in the proposed *TK, TCE and GR Act* are spelled out below. Notably, the consistent use of definitions, the clarification of legal objects and juristic persons that are eligible for ownership of TK, TCE and GR, the alignment of multiple statutory bodies, and the alignment of the limitations of IKS with current IP regimes and within a defined public domain. The following paragraphs aim to explain the rationale behind these recommendations.

6.7.1.1 Definitions

Throughout this thesis the confusingly similar definitions in various pieces of South African legislation have been pointed out. Adding to this untenable situation is the use of confusingly similar definitions in different international law instruments, WIPO's glossary, and countries such as Australia. In many instances, these definitions are formulated from either civil law or common law perspectives, all culminating in legal uncertainty.

6.7.1.2 Legal objects

In the *IK Act*, IK is entrenched as property in section 25 of the *Constitution*. In the *IPLA Act*, new legal objects are created, for example, indigenous and traditional works. It is submitted that all these new legal objects are manifested in existing legislation and that it is not necessary to complicate matters with this approach. Instead, the proposed *TK, TCE and GR Act* can simply harmonise legal objects in the mentioned legislations. The entrenchment of TK as Constitutional property right under section 25 is supported.

6.7.1.3 Juristic persons

The *IPLA Act* creates new juristic persons, namely ICs (to the exclusion of local communities) and suggests that these communities must be formalised as trusts. There are no legal objections against the formalisation of ICs as juristic persons because it was possible under existing legislation. The definition of an IC can at best be helpful when these communities want to formalise themselves. The concern was raised earlier that different juristic persons might claim ownership in the same legal objects – something that can be addressed if the government aligns the envisaged related statutory bodies for IKS with existing statutory bodies, for example the CIPC. It should also be a matter of choice for such communities to formalise their legal existence in terms of the current *Trust Property Control Act*¹⁵⁵⁶ or the *Company Act*.¹⁵⁵⁷

6.7.1.4 Statutory bodies and databases

There is no need to establish new and confusingly similar statutory bodies because most IP-related Acts have government agencies with a clear mandate to manage IP-related databases and disputes, among others. These mandates can be extended to IKS. Before moving on, the following detailed context on statutory bodies is provided:

¹⁵⁵⁶ *Trust Property Control Act* 57 of 1988.

¹⁵⁵⁷ *Companies Act* 71 of 2008.

6.7.1.4.1 Patents and biodiversity vis-à-vis Genetic Resources

The legislator has already implemented successful and commendable measures to align the *Patents Act* and the *Biodiversity Act* regarding GR. The *Patents Act* also provides for a commissioner with supreme court status to deal with all disputes related to patents, while the *Biodiversity Act* also has a dispute panel that has a mandate to deal with the sustainable use of indigenous biological resources and for fair and equitable benefit sharing arising from bio-prospecting.

6.7.1.4.2 Copyright vis-à-vis Traditional Cultural Expressions

The *Copyright Act* provides for a Copyright Tribunal. The additional accreditation of institutions for copyright and other IP-related IKS disputes in the *IPLA Act* by the Commissioner of the *Companies Act* is therefore misplaced and completely unnecessary.

6.7.1.4.3 Trademarks vis-à-vis Geographical Indications

The *Trademarks Act* gives the registrar jurisdiction as possessed by a single judge in a civil action before the Supreme Court. The *Trademarks Act* is already amended to provide for well-known international marks and GI, and many court cases are testimony of this forum's ability to deal with marks.

In summary, then, the logical use of synergies between the agencies established in terms of the *Trademarks Act*, the *Patents Act*, the *Copyright Act* and the *Biodiversity Act* leads to the recommendation that the Patents Commissioner's mandate is to be extended to deal with all IKS-related disputes. The Patents Commissioner, Copyright Tribunal and Trademark Registrar are all situated in the same physical space hosted by the CIPC, making it a logical place to establish an IKS sub-committee with the incumbents of the Patents Commissioner, Copyright Tribunal and Trademark Registrar having permanent seats as members of the proposed sub-committee.

6.7.1.4.4 National Trust and database

Although a central trust, as is provided for in the *Biodiversity Act*, is supported, questions arise about the overlapping of this trust with the National Trust, as is enacted in the *IPLA Act* or NIKSO, as is enacted in the *IK Act* or the register (database), also enacted in the *IK Act* – clearly there is a need for an IKS beneficiary trust and an appropriate IKS database. However, it must only be one, and not multiple trusts regulated by multiple government departments; to establish a National Trust and Database, as is already envisaged in the *IK Act*. The National Trust and Database will be hosted by the CIPC to ensure alignment with the current patents and trademarks databases. One should not underestimate the importance of hosting the database at the CIPC. Such a database will have the same status and relevance as the TKDL which India employs to ensure that prior art that is confidential (or secret and sacred in the IKS context) can be managed for patentable inventions. There is currently a well-established research unit that already works on an IKS database, which role should be entrenched – for example the Centre for African Studies.

6.7.1.5 Limitations of indigenous knowledge rights

Limitations to the rights, protection and exploitation of TK, TCE and GR should be aligned with existing IP regimes. The main objective of this alignment is to ensure that there is only one public domain in South Africa - it has already been argued that the infinite protection of TK will most likely be unconstitutional. The alignment of the limitations of IKS with the IP regime must first and foremost be done in a manner that respects the sacred and secret nature of many manifestations of IKS, as well as the land on which the IKS was created. In many instances, the role of IPLCs' *droit moral*, as stewards of their community members' creations should be allowed. This can be done if the recommendations above are correctly implemented and where registered IPLCs will be able to prevent the misappropriation of IKS.

Careful consideration of the proposed harmonisation of IKS-related definitions will also lead to an environment where the limitations and exceptions of existing IP legislation, for example, the *Copyright Act*, can be utilised as an effective tool.

6.7.2 National strategy

Structure is supposed to follow strategy, but since the South African government already had IKS-related pieces of legislation in place, it was more appropriate to deal with those earlier. That does not negate the necessity to make recommendations on the strategic approach towards IKS in South Africa. The following key components should be considered: policy initiatives, infrastructure, and practical tools. Concerning each of these key components, the following is of importance for the South African situation:

6.7.2.1 Policy reforms

South Africa already has a comprehensive, but outdated IKS Policy that was lodged at WIPO by the DSI in 2004. In 2018, the DTI released the Intellectual Property Policy of South Africa. In this policy, reference is made to a coordinated approach towards IKS, which is questioned with reference to the divergent legislative initiatives mentioned.

6.7.2.2 Infrastructure

The WIPO-IGC's recommendation that inventories, databases, and other information systems are part of the infrastructure that complements and supports policies and legal systems for IKS, is fully supported.

6.7.2.3 Practical tools

The WIPO-IGC also suggests that instruments such as draft benefit sharing agreements, guidelines, protocols, and practical steps such as community consultation, capacity building, and awareness-raising activities, be used by stakeholders to facilitate a deep understanding of IKS. Some practical tools and measures are briefly listed below, notably on handicraft, traditional medicine, and agriculture.

6.7.2.4 Handicraft

The WIPO-IGC correctly notes that, although the Western IP regime allows for

adequate protection of traditional handicraft, the real issue remains potentially unfair competition. Of further note is the way in which the WIPO-IGC envisages how handicraft can be protected from an IP perspective, namely, to build a brand around the style, origin or quality, shape and design; and the skills and knowledge used to create the handicraft.

6.7.2.5 Traditional medicine

The WIPO-IGC promote the *sui generis* approach as a suitable legal instrument for the protection of traditional medicine. Interestingly, the systematic recording and documentation of knowledge relating to traditional medicine is also suggested. Furthermore, the documentation of traditional medical knowledge is essentially a defensive strategy that does not grant IP rights over the material – it can merely invalidate patents for claimed inventions that are directly based on such inventions – this is not ideal.

6.7.2.6 National and international database

South Africa and other developing countries must develop an international database where some information and data can be shared in the public domain. In this regard, various options are at policy developers' disposal. Digital libraries are one (as India's TKDL has proved) and the C7 model currently applied by researchers in Namibia is another sterling example. The use of the internet to disseminate TK and TCE, for educational purposes, is also important. In this regard such dissemination will allow indigenous artists to enter the contemporary space of cultural content creation and further allow other artists to add new layers of creative substance. Online trading platforms can open a global market for TCE, although one will need to balance the associated risks of commodification and/or increased misappropriation due to the rising economic interest. Burri-Nenova's constructive contribution to the IKS discourse is enlightening because it allows the law to embrace digital technologies that can provide a creative public domain where IPLCs retain permanent control over all elements of their heritage and determine how IKS is shared and used.

6.7.2.7 Documentation of cultural heritage

Although South Africa has not ratified the UNESCO *Convention for the Safeguarding of the Intangible Cultural Heritage*, the WIPO-IGC is of the view that the systematic documentation (including digitisation) of IKS serves five valuable purposes: the safeguarding and preservation of IKS; the protection of secret and sacred IKS; research and development opportunities regarding IKS; the defensive protection of IKS; and positive protection of IKS. With powerful digital technologies at our disposal, the use of DRM technologies can be utilised in a very positive manner to unlock the value of IKS. The WIPO toolkit and guide for safeguarding IKS should therefore be embraced.

6.7.2.8 Alternative dispute resolution

The WIPO-IGC, among others, recommends alternative dispute resolution (hereafter ADR), because it provides a context for resolving disputes which recognises the cultural, ethical, and historical concerns that exist in relation to IP and IKS. The reform of recent South African legislative activities in the field of IP should ensure that ADR is from the outset aligned with customary law in South Africa, because ADR is not an alternative to the legal protection of IKS but merely complements dispute settlement. ADR should be contextualised with dispute resolution mechanisms already in place, as well as developing countries' ability to afford such actions.

Epilogue

Sir Alexander Fleming grew up as the son of a Scottish farmer. He discovered antibiotics from the mould *penicillium rubens* in 1928. The wild-type GR, *penicillium rubens*, is a common fungus occurring in any indoor environment and not endemic to any specific country. Fleming was a natural scientist who drew on his peers' knowledge in the public domain and his experience gained on bacteria while serving in French hospitals during World War I – he stood on the proverbial shoulders of giants. Some 12 years later, his PhD students, Florey and Chain, successfully isolated and described the chemical nature of penicillin at Oxford University. The optimisation of the fermentation process and the method of extracting penicillin from the mould by other scientists, Heatley and Moyer, followed between 1940 and 1945, just in time to make a difference in the lives of many wounded soldiers after the Pearl Harbour attack.

This European case study is purposefully selected to gain some distance from the many case studies used in the thesis. With the insights gained in the previous chapters it would be easy to observe that in this case study too, the public domain is a universal concept that equally applies worldwide. More specifically, Fleming merely discovered the wild-type mould that was in the public domain and later, other researchers obtained IP protection for their creations of the mind. Today, the patents have expired, and the whole world benefits from the principles related to antibiotics that are in the public domain. If it were not for the public domain, humankind would not reap the benefits of antibiotics as is done around the world.¹⁵⁵⁸

¹⁵⁵⁸ See the case study in para 2.4.4.1. Likewise, similar hypothetical questions can be asked, with reference to the Fleming case study:

Who owns knowledge?

Is it the indigenous farming community of Scotland where Fleming grew up and learned to observe nature and the public domain?

Is it the French doctors who collaborated with Fleming in their hospitals and where he observed the resistance of many bacteria?

Or is it perhaps Fleming's peers who published their earlier findings in academic journals; or the French, the country in which the mould was first described in literature? Florey and Chain who described the active compound should also be considered; as should Oxford University, their employer at that time. Or is it Heatley and Moyer and their engineering team who optimised

This journey started for me as an IP scholar and technology transfer professional. Soon I realised that some context is missing in respect of the IKS discourse – a discourse that crossed my path with all the innovations that I had to commercialise throughout my career. This discourse led to visits to India, Australia, Japan and many more countries. I found the inspiration to tread this path in Namibia, the first country where I was able to experience peace among people with diverse views. My introduction to the public domain by a colleague then opened the window and ever since I was intrigued by how the IKS discourse can be unifying.

~end~June 2023~

and scaled the industrial production processes; or the USA pharmaceutical companies that profited from this new drug to the exclusion of Fleming, Florey, Chain, Heatley, and British companies?

ANNEXURES

ANNEXURE A: GLOSSARY

A brief note on IKS-related terminology used worldwide

Readers may find the interchangeable and inconsistent use of certain IKS terms by international organisations, countries, scholars and policy-makers confusing. This glossary aims to define all these terms and use the footnotes to cross-reference those definitions with specific international organisations or countries. In general, when terms are defined in this Annexure, they are derived from international law instruments and/or organisations as primary source. Thereafter it resorts to South African legislation or policies, followed by dictionaries, and lastly, from general sources. Country- and author specific terminology is also indicated.

According to the WIPO-IGC, it is important to differentiate between TK, TCE and GR as specific categories of IKS. This is important when it comes to the correct reference to international law instruments which protect the rights of innovators, authors, IPLC, and other stakeholders. In this thesis IKS is used consistently as the collective term for TK, TCE and GR. Where it is important to differentiate between these, reference is made to that specific term.

For example, the South African government prefers to refer to indigenous communities (IC) only, to the exclusion of local communities. The United Nations also refers to indigenous peoples, to the exclusion of local communities. The South African government uses biological resources (BR), indigenous knowledge (IK), and indigenous cultural expressions (ICE), as opposed to GR, TK, and TCE. Since 2019, IK is the preferred terminology used by the South African government as the collective reference to BR, IK, and ICE, although many national policy documents still refer to IKS. Lastly, the reader's attention is also drawn to paragraph 2.1.1 where some aspects related to terminology are unpacked.

Aesthetic design: "Any design applied to any article, whether for the pattern or the shape or the configuration or the ornamentation thereof, or for any two or more of those purposes, and by whatever means it is applied, having features which appeal to and are judged solely by the eye, irrespective of the aesthetic quality thereof."¹⁵⁵⁹

Appellation of origin (AOO): "The geographical denomination of a country, region, or locality, which serves to designate a product originating therein, the quality or characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors."¹⁵⁶⁰

This *Lisbon Agreement* definition is not to be confused with the definition of geographical indicators (GI), in the *TRIPS Agreement*.

The French translation of AOO is often used: *Appellation d'origine controlee (AOC)*.

Benefit: "In relation to

bioprospecting involving indigenous biological resources, means any benefit, whether commercial or not, arising from bioprospecting involving such resources, and includes both monetary and non-monetary returns."¹⁵⁶¹ In relation to IKS in the broader sense, any benefit, whether commercial or not, arising from IKS activities includes both monetary and non-monetary returns.

Biodiversity: "The variability among living organisms from all sources including, inter alia, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems."¹⁵⁶²

Biopiracy: Theft of genetic resources by bio-prospectors operating without PIC. "Bio-piracy's multiple definitions encompass appropriation and privatisation of collective knowledge and biological resources, unfair compensation, failure to obtain authorisation and consent, and asymmetries in movement of

¹⁵⁵⁹ Section 1(1) of the *Designs Act*.

¹⁵⁶⁰ Article 2(1) of the *Lisbon Agreement (1958)*.

¹⁵⁶¹ Section 1(1)(b) of the *Biodiversity Act*.

¹⁵⁶² Article 2 of the *CBD (1992)*.

biological resources from the South to the North through the processes of international institutions and the patent system."¹⁵⁶³

Bio-prospecting: "In relation to indigenous biological resources (IBR), means any research on, or development or application of, indigenous biological resources for commercial or industrial exploitation, and includes: (a) the systematic search, collection or gathering of such resources or making extractions from such resources for purposes of such research, development or application; (b) the utilisation for purposes of such research or development of any information regarding any traditional uses of indigenous biological resources by indigenous communities; or (c) research on, or the application, development or modification of, any such traditional uses, for commercial or industrial exploitation."¹⁵⁶⁴

Bootleg recording: Also known as bootlegging, an unauthorised audio or video recording of a live performance by an artist(s) by anyone who attends

the performance.

Certification mark: "A mark capable of distinguishing, in the course of trade, goods or services certified by any person in respect of kind, quality, quantity, intended purpose, value, geographical origin or other characteristics of the goods or services, or the mode or time of production of the goods or of rendering of the services, as the case may be, from goods or services not so certified, shall, on application in the prescribed manner, be registrable as a certification trade mark in respect of such first mentioned goods or services, in the name, as proprietor thereof, of that person: Provided that a mark may not be so registered in the name of a person who carries on a trade in the goods or services in respect of which registration is sought."¹⁵⁶⁵

Compulsory licence: An involuntary contract between a willing buyer and an unwilling seller (without the rights holder's authorisation) imposed and enforced by the state in the interest of

¹⁵⁶³ Priya and Kurian 2018 *Science, Technology and Society* 526.

¹⁵⁶⁴ Section 1(1) of the *Biodiversity Act*.

¹⁵⁶⁵ Section 42(1) of the *Trademarks Act*.

the public, eg, for public health purposes or extreme emergency.

Collective mark: "Collective marks are usually defined as signs which distinguish the geographical origin, material, mode of manufacture or other common characteristics of goods or services of different enterprises using the collective mark. The owner may be either an association of which those enterprises are members or any other entity, including a public institution or a cooperative."¹⁵⁶⁶

"A mark capable of distinguishing, in the course of trade, goods or services of persons who are members of any association from goods or services of persons who are not members thereof, shall, on application in the manner prescribed and subject to the provisions of this section, be registrable as a collective trade mark in respect of such first-mentioned goods or services in the name of such association as the proprietor thereof."¹⁵⁶⁷

Copyright: "The exclusive right relating to work embodying intellectual content (ie, the product of the intellect) to do or to authorize others to do certain acts in relation to that work, which acts represent in the case of each type of work, the manner in which that work can be exploited for personal gain or profit."¹⁵⁶⁸

Cultural knowledge: Cultural knowledge is an Australian umbrella term to cover "all types of indigenous knowledge and is defined as an intense affiliation with land and waters and includes forms of expression like dance, art, stories and ceremonies, to knowledge of the medicinal properties of plants and genetic resources, [as well as secret ceremonies, artworks, song cycles and sacred narratives]."¹⁵⁶⁹

Customary law: "A set of customs, practices and beliefs that are accepted as obligatory rules of conduct by indigenous peoples and local communities. Customary law forms an intrinsic part of their social and

¹⁵⁶⁶ WIPO 2020
<https://www.wipo.int/trademarks/en/>.

¹⁵⁶⁷ Section 43(1) of the *Trademarks Act*.

¹⁵⁶⁸ Dean *Handbook of South African Copyright Law* 15.

¹⁵⁶⁹ Janke and Sentina *Indigenous Knowledge: Issues for protection and management* 12.

economic systems and way of life."¹⁵⁷⁰

Derivative: "A naturally occurring biochemical compound resulting from the genetic expression or metabolism of biological or genetic resources, even if it does not contain functional units of heredity."¹⁵⁷¹

Derivative work: "A [copyright] work based upon the Work or upon the Work and other pre-existing works; including an adaptation of a Work, translation, musical Work, dramatization, fictionalization, cinematographic film, sound recording, art reproduction, abridgment, condensation, adaptation for use by sensory disabled persons, or any other form in which the Work may be recast, transformed, or adapted, except that a work that constitutes a Collective Work will not be considered a Derivative Work for the purpose of this Licence. For the avoidance of doubt, where the Work is a musical work or sound recording, the synchronization of the Work in timed-

relation with a moving image ('synching') will be considered a Derivative Work for the purpose of this Licence. Synching is not limited to synchronization of sound and moving images."¹⁵⁷²

Design: An aesthetic design or a functional design, as defined.

Developed country: "A country with a lot of industrial activity and where people generally have high incomes."¹⁵⁷³ Note that the definitions of developed and developing countries have, to date, never been formally agreed upon.

Developing country: "A country with little industrial and economic activity and where people generally have low incomes."¹⁵⁷⁴ Note that the definitions of developed and developing countries have, to date, never been formally agreed upon.

Digital rights management (DRM): "Security measures for digital works. DRM is any technical security

¹⁵⁷⁰ WIPO IGC Background Brief - No 7 1.

¹⁵⁷¹ ARIPO *ARIPO Genetic Resource Guide* 8.

¹⁵⁷² Creative Commons 'License (CCPL)' <<https://creativecommons.org/licenses/by-sa/2.5/za/legalcode>> accessed 22 July 2018.

¹⁵⁷³ Cambridge University Press, *Cambridge Dictionary* (Cambridge University Press 2018).

¹⁵⁷⁴ Cambridge University Press *Cambridge Dictionary*.

measure that restricts what third parties can do with an electronic file, in the main by means of encryption technology, licensing conditions, and/or user authentication (but may also include watermarking, access control, secure communication protocols, fingerprinting rights' specification language, trust infrastructure, hashing). For example, DRM can determine under what circumstances, how many times, for how long, and on which platforms a user may access a file."¹⁵⁷⁵

Digital sampling: A technique of cutting a portion from a proprietary recorded musical work and then blending it into a new recording. This technique has strongly influenced hip-hop and electronic music genres in particular. Even though the sample may no longer be recognisable, the new use is a derivative work.

Discovery: "To find unexpectedly."¹⁵⁷⁶ A discovery is not the same as an invention.

Note: Also see the *Patents Act*.

"Anything which consists of (a) a discovery...shall not be an invention for the purposes of this Act."¹⁵⁷⁷

Disruptive technology: New technology(ies) that renders existing technology obsolete. Examples are electricity that replaced the steam engine, or the synthetisation of active molecules that renders the cultivation of plants where the molecules were found, obsolete.

Droit Moral: *Droit moral* is the French word for moral rights. It protects artistic integrity.

Ex-situ conservation: "The conservation of components of biological diversity outside their natural habitats."¹⁵⁷⁸

Fair dealing: A limited defence/right to the exclusivity of copyright which allows, but is not limited to, fair critique, research, or use for private study of the protected material, subject to appropriate acknowledgement. In general, if the cumulative effect of the reproductions

¹⁵⁷⁵ Verhoef *The fair dealing doctrine in respect of digital books* xix.

¹⁵⁷⁶ Reader's Digest *Reader's Digest Dictionary* 286.

¹⁵⁷⁷ Section 25(2)(a) of the *Patents Act*.

¹⁵⁷⁸ ARIPO *ARIPO Genetic Resource Guide* 8.

and the intended use do not infringe the rightsholder's right to exploit the work, and as such unreasonably prejudice the legal interest of the rightsholder, the reproduction can be fair dealing. Note the opposing views in South Africa.¹⁵⁷⁹

Fair use: In the USA, the regime of limitations and exceptions as prescribed by the *Berne Convention*. Fair use is a highly flexible instrument in that USA courts can find a use to be fair based on four factors: "1) The purpose and character of the use, including whether such use is of commercial nature or is for non-profit educational purposes; 2) The nature of the copyrighted work; 3) The amount and substantiality of the portion used in relation to the copyrighted work as a whole; and 4) The effect of the use upon the potential market for, or value of, the copyrighted work."¹⁵⁸⁰

Folklore: The UNESCO definition is used, although there are similarities between folklore and TCE as used by

WIPO.

"Folklore (or traditional and popular culture) is the totality of tradition-based creations, of a cultural community, expressed by a group or individuals and recognized as reflecting the expectations of a community in so far as they reflect its cultural and social identity; its standards and values are transmitted orally, by imitation or by other means. Its forms are, among others, language, literature, music, dance, games, mythology, rituals, customs, handicrafts, architecture and other arts."¹⁵⁸¹

Free Prior Informed Consent (FPIC): "Free – Free from intimidation, coercion or pressure by anyone; Prior – Consent must be sought before any project/research can begin. Community must be given time to consider the proposal; Informed – The information should describe the nature, size, duration and reason for the proposed project/activity. Also, the social, economic impacts and persons

¹⁵⁷⁹ Verhoef *The fair dealing doctrine in respect of digital books* xx.

¹⁵⁸⁰ 17 *US Code* § 107.

¹⁵⁸¹ UNESCO
<https://en.unesco.org/about-us/introducing-unesco..>

1946

involved; Consent – Communities have the right to say yes or no once they understand the proposal. Decision and representation is at the communities' own choice."¹⁵⁸²

Freedom to operate: This term is generally associated with registerable IP such as patents. Potential users of IP usually conduct a freedom-to-operate search to establish whether or not their planned actions will infringe on the rights of IP rightsholders. Or, within the context of this thesis, freedom to operate searches can also be the *a priori* demarcation of the public domain.

Functional design: "Any design applied to any article, whether for the pattern or the shape or the configuration thereof, or for any two or more of those purposes, and by whatever means it is applied, having features which are necessitated by the function which the article to which the design is applied, is to perform, and includes an integrated circuit topography, a mask work and a series

of mask works."¹⁵⁸³

Geographical indications (GI):

WIPO definition: "Geographical Indications are signs used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin. To function as Geographical Indications, a sign must identify a product as originating in a given place. In addition, the qualities, characteristics or reputation of the product should be essentially due to the place of origin. Since the qualities depend on the geographical place of production, there is a clear link between the product and its original place of production."¹⁵⁸⁴

TRIPS definition: "Geographical Indications are, for the purposes of this Agreement, indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical

¹⁵⁸² Traynor *et al* *Protecting and Promoting Indigenous Peoples Rights in Academic Research Processes* 10.

¹⁵⁸³ Section 1(1) of the *Designs Act*.

¹⁵⁸⁴ WIPO 2018
http://www.wipo.int/geo_indications/en/

origin."¹⁵⁸⁵

These WIPO and *TRIPS* definitions are not to be confused with the *Lisbon Agreement's* definition of appellations of origin (AOO).

Genericide: The loss of an appellation when it becomes generic and is thus unable to function as a GI in each market.

Genetic material (GM): GM means "any material of plant, animal, microbial or other origin containing functional units of heredity."¹⁵⁸⁶

Genetic Modified Organism (GMO): "GMOs are organisms (ie, plants, animals or microorganisms) in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination."¹⁵⁸⁷

Genetic Resources (GR): The *CBD* defines GR as "genetic material of actual or potential value."¹⁵⁸⁸

WIPO has an ever-evolving definition. At the time of this publication WIPO supported the *CBD* definition.

In South Africa, "GR means - (a) any indigenous genetic material; or (b) the genetic potential or characteristics of any indigenous species."¹⁵⁸⁹

Genetic Use Restriction Technology (GURT): GURT, also known as 'terminator' technology, shuts off the reproductive abilities of seeds, rendering second generation seeds sterile.

Geographic Certification Marks (GCM): "A word, name, symbol, device, or some combination of these elements, used alone or as a portion of a composite mark, to certify that the goods or services originate in the geographical region identified by the term or, in some circumstances, from a broader region that includes the region identified by the term."¹⁵⁹⁰

Handicrafts: "Handicrafts are

¹⁵⁸⁵ Article 22(1) of the *TRIPS Agreement* (1994).

¹⁵⁸⁶ Section 2 of the *CBD* (1992). S 1(1) of the *Biodiversity Act* has the same definition for genetic material than the *CBD*.

¹⁵⁸⁷ World Health Organisation (WHO) 2018 http://www.who.int/foodsafety/areas_w

[ork/food-technology/faq-genetically-modified-food/en/](http://www.who.int/foodsafety/areas_w).

¹⁵⁸⁸ Article 2 of the *CBD* (1992).

¹⁵⁸⁹ Section 1(1) of both the *Patents Act* and the *Biodiversity Act*.

¹⁵⁹⁰ USA 2017 <https://tmep.uspto.gov/RDMS/TMEP/current#/current/TMEP-1300d1e632.html>.

sometimes referred to as artisanal products, craft products, traditional creative crafts or works of artistic or traditional craftsmanship. There is no universally agreed definition of handicrafts, but the following common characteristics can be identified:

- they are produced by artisans, completely by hand or with the help of hand-tools or even using machinery, provided the artisan's direct manual contribution remains the most substantial component of the finished product;
- they are representations or expressions that are symbolic of the artisan's culture;
- they encompass a wide variety of goods made of raw materials;
- their distinctive features can be utilitarian, aesthetic, artistic, creative, culturally attached, decorative, functional, traditional, or religiously and socially symbolic and significant;
- there are no particular restrictions on production quantity, and no two pieces are exactly alike."¹⁵⁹¹

¹⁵⁹¹ WIPO IGC Background Brief - No 5 1.

Indigenous Biological Resources

(IBR): In South Africa, IBR is used, as opposed to GR. The *Biodiversity Act* defines IBR as "When used in relation to bioprospecting, means any indigenous biological resource as defined in section 80(2); or (b) when used in relation to any other matter, means any resource consisting of (i) any living or dead animal, plant or other organism of an indigenous; (ii) any derivative of such animal, plant or other organism; or (iii) any genetic material of such animal, plant or other organism."¹⁵⁹²

The *Patents Act 58 of 1978* also uses this definition of IBR.

Indigenous Genetic Material

(IGM): IGM is used in the definitions in the *Patents Act*. Only GM is defined, but this is in the *Biodiversity Act*.

Indigenous Knowledge (IK): The same as Traditional Knowledge (TK), as defined below – the terms are used interchangeably. In this thesis, as in most national discourse and international fora, the term TK is used.

Some scholars, like Janke, prefer the

¹⁵⁹² Section 1(1) of the *Biodiversity Act*.

use of IK as a combined term for TK and TCE.¹⁵⁹³ The South African government also prefers the use of IK rather than TK.

Indigenous Knowledge Systems

(IKS): IKS is the terminology used by the South African government as the collective reference to genetic resources (GR), traditional knowledge (TK), and folklore or traditional cultural expressions (TCE), as defined herein.

Indigenous Peoples: Indigenous peoples, as used by the UN, are "inheritors and practitioners of unique cultures and ways of relating to people and the environment. They have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live."¹⁵⁹⁴

The UN also recognises definitions of others, such as those of Cobo, which reads as follows: "The criterion of self-identification, which include: Historical

continuity with pre-invasion and/or pre-colonial societies that developed on their territories; Distinctiveness; Non-dominance; and A determination to preserve, develop and transmit to future generations their ancestral territories and identity as peoples in accordance with their own cultural patterns, social institutions and legal system, while stressing the importance of a strong link to territories and surrounding natural resources; Distinct social, economic or political systems; and Distinct language, culture and beliefs."¹⁵⁹⁵

Indigenous Peoples and Local Communities (IPLC):

IPLC, as used by WIPO, is an inclusive term for both indigenous peoples (as defined) and local communities.¹⁵⁹⁶

Intellectual property (IP): Two definitions are used in order to maintain consistency. Under the *TRIPS Agreement*, IP refers to all categories of intellectual property covered by articles 1 through 7 of Part

¹⁵⁹³ Janke and Sentina *Indigenous Knowledge: Issues for protection and management* 17.

¹⁵⁹⁴ UN 2019 <https://www.un.org/development/desa/indigenouspeoples/about-us.html>.

¹⁵⁹⁵ UN *Indigenous Peoples and the United Nations Human Rights System* 3.

¹⁵⁹⁶ WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>. 1.

II of the *TRIPS Agreement*, namely: article 1, Copyright and neighbouring rights; article 2, brands or trademarks; article 3, geographical indications; article 4, designs and industrial models; article 5, patents; article 6, configuration schemes (topographies) of integrated circuits; and article 7, protection of undisclosed information.¹⁵⁹⁷

Industrial Property: The international community often divides intellectual property into two categories: industrial property and copyright, as used in the *Paris Convention*.¹⁵⁹⁸ In this context industrial property has as its object patents, utility models, industrial designs, trademarks, service marks, trade names, geographical indications (indications of source or appellations of origin), new plant varieties, and the repression of unfair competition.

Invention: "Something that has never been made before, or the process of creating something that has never been made before."¹⁵⁹⁹

Khoisan: Khoisan people is the collective term for Khoi-Khoi people, who are nomadic pastoralists, and the San people, who are hunter-gatherers.

Know-how: Technical information that is not in the public domain and not protected by patent or similar IP legislation. Know-how may include information relating to inventions, discoveries, concepts, methodologies, models, research, development and testing procedures, the results of experiments, tests and trials, manufacturing processes, techniques and specifications, quality control data, analyses, reports, and submissions.

Knowledge: Because of the very nature of this thesis, the definition of knowledge is fluid throughout. Two definitions are proposed: "Understanding of or information about a subject that you get by experience or study, either known by one person or by people generally."¹⁶⁰⁰

"A shared resource, a complex ecosystem that is a commons – a

¹⁵⁹⁷ Sections 1 to 7 of the *TRIPS Agreement* (1994).

¹⁵⁹⁸ Articles 1(1, 2, & 3) of the *Paris Convention* (1883).

¹⁵⁹⁹ Cambridge University Press *Cambridge Dictionary*.

¹⁶⁰⁰ Cambridge University Press *Cambridge Dictionary*.

resource shared by a group of people that is subject to social dilemmas."¹⁶⁰¹

Note that this conventional definition serves as baseline to define traditional knowledge, also defined below.

Least Developed Country (LDC):

The concept of LDCs originated in the late 1960s and the first group of LDCs was listed by the UN in 1971.¹⁶⁰² Also note the definitions of developing and developed countries above.

Literary work: Irrespective of literary quality and in whatever mode or form expressed: "(a) novels, stories and works of poetry; (b) dramatic works, stage directions, cinematograph film scenarios, and broadcasting scripts; (c) textbooks, treatises, histories, biographies, essays, and articles; (d) dictionaries and encyclopaedias; (e) letters, reports, and memoranda; (f) lectures, speeches, and sermons; and (g) tables and compilations, including tables and compilations of data stored or

embodied in a computer or a medium used in conjunction with a computer, but shall not include a computer program."¹⁶⁰³

Local communities: The WIPO always refers inclusively to Indigenous Peoples and Local Communities (IPLC). This is done to include local communities as human groups that are distinguished by their cultural conditions and preservation of their social and economic institutions, regardless of being indigenous to the region prior to Colonisation.¹⁶⁰⁴

Marks: The collective reference to trademarks, service marks, trade names; well-known marks; collective marks; indications of source or appellations of origin; and certification marks.

Micro-organism: Organisms less than one millimetre in diameter, such as viruses, bacteria, many algae, fungi, and protozoa too small to be

¹⁶⁰¹ Hess and Ostrom (eds) *Understanding Knowledge as a Commons: From Theory to Practice* 3.

¹⁶⁰² UN in its resolution 2768 (XXVI) of 18 November 1971. Minutes of the UN's General assembly

<http://www.unitar.org/resource/sites/unitar.org.resource/files/document-pdf/GA-2767-XXVI.pdf>.

¹⁶⁰³ Section 1(1) of the *Copyright Act*.

¹⁶⁰⁴ WIPO IGC *Glossary of key terms related to IP and GR, TK and TCE*.

seen clearly by the naked eye.¹⁶⁰⁵

Open access (OA): Works embodying intellectual content that are freely available (mostly online), free of charge, and free of most copyright and licencing restrictions and can be reproduced and distributed. The consent of the author or copyright holder is required before the works can be classified as open access (OA).

Open access archives or repositories: Archives or repositories where open access (OA) works are freely available. Usually, open access archives have no peer review or similar quality assurance processes in place to validate the content.¹⁶⁰⁶

Open access journals: Journals where the open access (OA) works are subjected to a peer review process before being made available freely to the public.¹⁶⁰⁷

Open licence: An open (and free) licence that allows creators and

copyright holders to specify under what conditions their works are made available to the public for further use and the creation of derivative works – with this licence no prior permission from the creator is required. Some open licences, such as the Creative Commons licences are irrevocable.

Oriental medicine: Traditional medicine, as defined, originating from the Far East countries.

Parallel importation: "The unauthorised importation into and sale in a country where an applicable intellectual property right exists, of genuine goods embodying the subject matter of the intellectual property right and first put onto the market in another country by or with the consent of the [rightsholder]."¹⁶⁰⁸

Patent: "A certificate in the prescribed form to the effect that a patent for an invention has been granted in the Republic."¹⁶⁰⁹ Also see the definition of an invention that

¹⁶⁰⁵ Harley, Prescott and Klein *Microbiology* 2.

¹⁶⁰⁶ Suber 'A very brief introduction to Open Access'
<<http://legacy.earlham.edu/~peters/fof/brief.htm>> accessed 6 October 2018.

¹⁶⁰⁷ Suber, 'A very brief introduction to Open Access'.

¹⁶⁰⁸ Du Plessis 1999 *Law, Democracy & Development* 3.

¹⁶⁰⁹ Section 2 of the *Patents Act*.

informs a patent.

Performer: "Actors, singers, musicians, dancers, and other persons who act, sing, deliver, declaim, play in, interpret, or otherwise perform literary or artistic works or expressions of folklore."¹⁶¹⁰ Note that current South African legislation (the *PP Act* and the *Copyright Act*) legislation does not provide for "expressions of folklore".

Phonogram: Means "the fixation of the sounds of a performance or of other sounds, or of a representation of sounds, other than in the form of a fixation incorporated in a cinematographic or other audiovisual work."¹⁶¹¹

Plain packaging: Restrictions imposed by legislation upon the colour, shape, and finish of packaging of products and which prohibits the use of a trademark on such packaging.

Plant breeders' right: Intellectual property rights protection for a new variety of a plant.

Prior art: The entire body of knowledge which is available in the

public domain. With some forms of IP, eg, patents, the patent will not be granted if there is prior art. When countries determine the patentability of an invention, the criteria of their national laws in respect of prior art and other conditions of patentability apply.¹⁶¹²

In some countries, natural products (pre-existing biological resources) must be isolated and purified to pass the no-prior-art criterion for patentability.

Public domain: A body of knowledge and information that the public can access freely, use, and use to create new works. No one owns the public domain.

Litman loosely defines the public domain or the intellectual commons, not as the realm of material that is undeserving of protection, but as a device that permits the rest of the system to work by leaving the raw material of authorship available for authors to use.¹⁶¹³

Another notion of the public domain

¹⁶¹⁰ Article 2(a) of the *WPPT (1996)*.

¹⁶¹¹ Article 2(b) of the *WPPT (1996)*.

¹⁶¹² Article 28(5) of the *PCT (2001)*.

¹⁶¹³ Litman 1990 *Emory L J* 968.

comprises of IP for which the term of protection has run out; IP that has been forfeited or unclaimed; and those intangible goods that fall outside the scope of protection of IP laws.¹⁶¹⁴

Reversionary rights: A condition which provides that, on the occurrence of a prescribed event (eg, after a certain period of time), ownership of the IP (eg copyright) will revert to the previous owner (creator of the work) or, if so expressed, to the heirs of the previous owner if he or she has died, or to their successors in title.

Rightsholder: The proprietor of an IP right. For example, copyright by a publisher in a work where copyright has been assigned by the author to the publisher, or the author him or herself where copyright has been retained by the author.¹⁶¹⁵

Scènes à faire: In a book, performance, or film, a plot or element that is standard and almost obligatory for a particular genre.

Speak for Country: An imprecisely

defined Aboriginal concept in the Australian legal system. "The concept embodies the broad notion that indigenous people are custodians of the physical and spiritual attributes of the land. It includes several specific rights such as granting permission to enter upon the land."¹⁶¹⁶

Technological protection measures (TPM): "Any technology, device, or component that, in the normal course of its operation, is designed to prevent or restrict acts in respect of works or other subject-matter, which are not authorised by the rightsholder of any copyright or any right relating to copyright as provided for by law."¹⁶¹⁷ DRM is an example of a TPM.

Technology transfer (TT): When proprietary technology is made available to a third party under certain conditions, which usually entail a royalty-bearing licence agreement. It is not uncommon that in addition to the transfer of registered IP, know-how is also transferred, but then under

¹⁶¹⁴ Graber and Burri-Nenova (eds) *IP and TCE in a Digital Environment* 173.

¹⁶¹⁵ Verhoef *The fair dealing doctrine in respect of digital books* xxiii.

¹⁶¹⁶ Stoeckel 2003 *Sydney Law Review* 257.

¹⁶¹⁷ *InfoSoc Directive (2001/29/EC)* ch III, c 6(3).

strict conditions of confidentiality.

Traditional cultural expressions

(TCE): WIPO uses the terms TCE and expressions of folklore to refer to tangible and intangible forms in which TK and cultures are expressed, communicated, or manifested.

Traditional healer: In the USA, a Shaman. In Latin America, a *curanderos*. The term is not to be confused with charlatans (quacks in the European context).

Traditional knowledge (TK): There is as yet no internationally acceptable definition of TK. WIPO uses a broad and a narrow description of TK.

"TK, as a broad description of subject matter, generally includes the intellectual and intangible cultural heritage, practices and knowledge systems of traditional communities, including indigenous and local communities.

In the international debate, TK in the narrow sense refers to knowledge as

such, in particular the knowledge resulting from intellectual activity in a traditional context and includes know-how, practices, skills, and innovations. TK can be found in a wide variety of contexts, including: agricultural knowledge; scientific knowledge; technical knowledge; ecological knowledge; medicinal knowledge, including related medicines and remedies; and biodiversity-related knowledge, etc."¹⁶¹⁸

Traditional medicine (TM): "The sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses."¹⁶¹⁹

Traditional Medicinal Knowledge

(TMK): TK related to medicinal knowledge, know-how, skills and practices.

¹⁶¹⁸ WIPO IGC *Glossary of key terms related to IP and GR, TK and TCE* 40.

¹⁶¹⁹ WIPO IGC 2016
<https://www.wipo.int/publications/en/se>

[ries/index.jsp?id=144](https://www.who.int/traditional-medicine/index.jsp?id=144). 1, where the IGC quotes the definition of traditional medicine of the World Health Organisation (WHO).

Traditional Peoples: Note that some scholars use traditional peoples, while other use indigenous peoples.

"Those who hold an unwritten corpus of long-standing customs, beliefs, rituals and practices that have been handed down from previous generations. They do not necessarily have claim of prior territorial occupancy to the current habitat; that is, they could be recent immigrants."¹⁶²⁰

Traditional use: "The way in which or the purpose for which an indigenous community has used an indigenous biological resource or a genetic resource."¹⁶²¹

Trade secret: "Broadly speaking, any confidential business information which provides an enterprise a competitive edge may be considered a trade secret. Trade secrets encompass manufacturing or industrial secrets and commercial secrets. The unauthorized use of such information by persons other than the holder is

regarded as an unfair practice and a violation of the trade secret. Depending on the legal system, the protection of trade secrets forms part of the general concept of protection against unfair competition or is based on specific provisions or case law on the protection of confidential information.

The subject matter of trade secrets is usually defined in broad terms and includes sales methods, distribution methods, consumer profiles, advertising strategies, lists of suppliers and clients, and manufacturing processes. While a final determination of what information constitutes a trade secret will depend on the circumstances of each individual case, clearly unfair practices in respect of secret information include industrial or commercial espionage, breach of contract and breach of confidence."¹⁶²²

Three-step test: The three-step test is set out in article 9(2)¹⁶²³ of the *Berne Convention*. The three-step test provides exceptions to rightsholders'

¹⁶²⁰ Shah 2014 *Global Health Governance* 60. Shah quotes from an earlier work of John Mugabe.

¹⁶²¹ Section 1(1) of the *Patents Act*.

¹⁶²² WIPO 2018 http://www.wipo.int/sme/en/ip_business/trade_secrets/trade_secrets.htm.

¹⁶²³ Article 9(2) of the *Berne Convention* (1886).

exclusive right of reproduction by setting out the requirements to be met by any legislative provision granting exemption from infringement of the right to reproduce.

User rights: Some scholars argue that exceptions and limitations are user rights.¹⁶²⁴

Unfair competition: Any act of competition contrary to honest practices in industrial or commercial matters constitutes an act of unfair competition.

Variety: Plant variety means "a plant grouping within a single botanical taxon of the lowest known rank, which grouping, irrespective of whether the conditions for the grant of a breeder's right are fully met, can be - defined by the expression of the characteristics

resulting from a given genotype or combination of genotypes, - distinguished from any other plant grouping by the expression of at least one of the said characteristics, and - considered as a unit with regard to its suitability for being propagated unchanged."¹⁶²⁵

Yoga *asanas*: The practice of yoga has been inherited from a several thousand-year-old ancient South Asian traditions that trains the embodied mind to accept truth through a combination of physical and mental practices. Yoga as a holistic health system is regarded as a symbol. of India's ancient civilisational heritage. *Asanas* are the yoga postures, of which at least 1,500 have been registered on the TKDL of India.

¹⁶²⁴ Eg, Craig, Li, Pistorius and Sun. Canadian courts also favour user rights. See in this regard the Canadian *Théberge* case in para [].

¹⁶²⁵ Article 1(vi) of the *UPOV Convention (1961)*.

ANNEXURE B - COPYRIGHT AND IKS PARADIGMS

Table B-1 aims to compare the development of copyright with IKS. This is done to show the dynamics of copyright within a public domain and how IKS can evolve too.

Table B-1: The development of the copyright and IKS paradigms since 1400

COPYRIGHT PARADIGM	IKS PARADIGM
	<i>Vedas (India)</i> (circa 1500 and 1200 BC) The transmission of the <i>Vedas</i> occurred by oral tradition from <i>guru</i> (teacher) to <i>shishya</i> (student).
First Enclosure Movement Although this refers to the development of land tenure in the UK since the 13th century, it is an important marker in the history of property.	
Gutenberg printing press (circa 1439) Dissemination of learning to the masses by means of the ability to reproduce copyright works in high volumes. The public domain was suddenly flooded with access to printed content.	Timbuktu, Mali (circa 1400 - 1600) The teachings of Islam, from astronomy and mathematics to medicine and law, were collected and produced here in several hundred thousand manuscripts and disseminated in the public domain.
Statute of Anne (1710) Encouraged learning by defining the public domain, while publishers were granted private property rights in the printed editions of the works.	
Macaulay's speech (1841) A speech made in Britain's House of Commons to motivate the extension of the copyright term. This speech was a result of the strong position of the publishing industry at that time and the resulting exploitation of authors.	

COPYRIGHT PARADIGM	IKS PARADIGM
Fair use doctrine (1841) Development of fair use doctrine in the USA (<i>Folsom</i>, <i>Emerson</i>, and <i>Selden</i> cases) which informed the way public domain and user rights were seen at that time. Also, the copyright-merger doctrine started to develop.	
Victor Hugo (1878) <i>Messieurs. Revenons au principe: Respect de la propriété.</i> Speech by Hugo to further the interest of authors and their right to income (royalties) similar to Macaulay's speech.	
Berne Convention (1886) Protects the rights of authors and <i>droit moral</i> of creators in a uniform manner, while the public domain is well defined and open access regulated by means of exceptions and limitations to copyright (by means of the so-called 'Three-Step Test' (art 9(2))).	
	Universal Declaration of Human Rights (1948) The right to participate in the cultural life of the community, enjoy the arts and share in scientific advancement and its benefits.
Project Gutenberg (1971) Provide digital books for the entire world to read in as many languages as possible. The content is mostly in printed format and out of copyright, and the project merely digitises content to achieve its objective of broadening the public domain.	
WPPT and WCT treaties (1996) WIPO digital rights treaties that protect the rights of authors in the digital environment. Private property is entrenched while the public domain is broadened by means of limitations and exceptions, exemptions, and defences.	

COPYRIGHT PARADIGM	IKS PARADIGM
Boyle's Public Domain and the Second Enclosure Movement (1999) Boyle argues that the development of advanced digital protection measures during the Information Age put content aggregators in a powerful position to enclose the digital commons to the detriment of creators and knowledge dissemination for the public good.	
First digital book sold (2000) Commercial value for authors and publishers fully recognised.	WIPO-IGC (2000) WIPO-IGC forum that discusses intellectual property issues that arise in the contexts of IKS.
	Traditional Knowledge Digital Library, India (2001) TKDL is a pioneering initiative by India to protect Indian traditional medicinal knowledge and prevent its misappropriation at International Patent Offices.
User Rights (2002) Copyright exceptions and limitations are considered by some scholars as user rights after the Canadian <i>Théberge</i> case.	
	UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003) Safeguards the intangible cultural heritage of indigenous communities.
	IPLA Act (2013) Attempt by the South African government to provide for the recognition and protection of IKS as a species of IP.
	Okediji manage to align <i>Berne</i> with IKS (2018) Applying the <i>Berne</i> Tree-Step Test to IKS. 1. Secret and sacred IKS; 2. Closely held IKS; 3. Widely disseminated IKS; and 4. Generic IKS.

COPYRIGHT PARADIGM	IKS PARADIGM
	Copyright and Performers' Protection Amendment Bills (2018) Attempt by the South African government to entrench IKS in copyright legislation.
	IK Act, 2019 Attempt by the South African government to protect TCE "for as long as it meets the eligibility criteria".
Globalisation and Disruptive 4IR Technologies In the final chapter of Ghidini's book he elegantly contextualises the impact of 4IR on the public domain.¹⁶²⁶ Recent technological developments around high processing computers, big data, and digitisation made projects like Project Gutenberg possible, but immediately led to interesting approaches by governments on the re-use of information that was in the public domain in the first instance. The example that he uses relates to taking digital pictures of aerial photographs, artefacts in museums, and maps, to list but a few. In the USA these efforts to broaden the public domain are encouraged without any payment requirements, while in the EU fees are charged, or the digitisation disallowed to encourage people to rather visit the museums.¹⁶²⁷ Fees or no fees, in both the USA and the EU the tourism industries benefit immensely from such re-use of information, serving the public good. Ghidini then proceed to argue, with reference to the <i>TRIPS Agreement</i>,¹⁶²⁸ that developing countries now have a "free hand in determining the IP status of data"¹⁶²⁹ in the public domain, and to leapfrog developed countries with the re-use of data in the public domain. Unfortunately, Ghidini is silent on the re-use of IKS in the public domain.	

¹⁶²⁶ Ghidini, Peritz and Ricolfi (eds) *TRIPS and Developing Countries* ch 10.

¹⁶²⁷ Ghidini, Peritz and Ricolfi (eds) *TRIPS and Developing Countries* 306.

¹⁶²⁸ Ghidini, Peritz and Ricolfi (eds) *TRIPS and Developing Countries* 310, where Ghidini, Peritz and Ricolfi refer to articles 4(2), 9 and 10(2) of the *TRIPS Agreement (1994)*.

¹⁶²⁹ Ghidini, Peritz and Ricolfi (eds) *TRIPS and Developing Countries* 310.

ANNEXURE C - INTERNATIONAL LAW INSTRUMENTS

Table C-1 summarises the most relevant information pertaining to international law instruments that are relevant to IKS. These instruments are categorised as follows:

Human rights instruments: Two non-binding UN declarations are relevant, namely the *Universal Declaration on Human Rights* (1948) and the *Declaration on the Rights of Indigenous Peoples* (2007). The *Convention for the Safeguarding of the Intangible Cultural Heritage* (2003), initiated by the UN's Educational, Scientific and Cultural Organisation (hereafter UNESCO) is also relevant.

Intellectual property instruments: In general, the international community divides IP instruments into two main categories: industrial property; and copyright.

Industrial property instruments: The *Paris Convention for the Protection of Industrial Property* (1883); and the *WIPO Patent Cooperation Treaty* (1970). Copyright

instruments: The *Berne Convention for the Protection of Literary and Artistic Works* (1886); the *WIPO Copyright Treaty* (1996); the *WIPO Performances and Phonograms Treaty* (1996); and *Beijing Treaty on Audiovisual Performances* (2012).

Natural and genetic resources instruments: The following international law instruments on biological and other resources are also of relevance to this thesis: the *International Convention for the Protection of New Varieties of Plants* (1961); the *Budapest Treaty* (1977); the *Convention on Biological Diversity* (1992); the *International Treaty on Plant Genetic Resources* (2001); the *Nagoya Protocol* (2010); and the *Swakopmund Protocol* (2010) – the latter is a regional instrument.

Trade agreements: Notably agreements stemming from the world Trade Organisation's initiatives, such as the *TRIPS Agreement*, among others are analysed. Although it is not an international instrument, the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (WIPO-IGC) is also discussed because of its important contribution to the current discourse on IKS and the public domain.

Table C-1: International law instruments that are relevant to IKS

International law instruments	Objectives of the international law instruments¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments¹⁶³¹
<i>Convention for the Protection of Industrial Property</i> (1883). ¹⁶³²	The <i>Paris Convention</i> applies to IP in the widest sense, including patents, trademarks, industrial designs, utility models, service marks, trade names, geographical indications, and the repression of unfair competition.	Accession, 1947. SA ratified the <i>Stockholm Act</i> of 1967. Australia, Mali, Mexico and Namibia respectively ratified the <i>Paris Convention</i> in 1972, 1982, 1976, and 2003. ¹⁶³³
<i>Convention for the Protection of Literary and Artistic Works</i> (1886). ¹⁶³⁴	The <i>Berne Convention</i> deals with the protection of works and the rights of their authors.	Declaration of continued application, 1928. SA has acceded to the <i>Paris Act of 1971</i> . Australia, Mali, Mexico and Namibia respectively ratified the <i>Paris Convention</i> in 1977, 1977, 1974, and 1993. ¹⁶³⁵
<i>General Agreement on Tariffs and Trade</i> (1947). ¹⁶³⁶		SA signed the agreement in 1948. SA also signed the <i>TRIPS Agreement</i> in 1994 as part of the Uruguay Round of negotiations that created the WTO and replaced <i>GATT</i> .

¹⁶³⁰ Note that the objectives listed in this column are derived/paraphrased/copied from the preambles of the respective international instrument.

¹⁶³¹ Unless otherwise referenced, see WIPO for all the dates that SA acceded to, or ratified these international law instruments, at WIPO, *Rome Convention: Member States* (WIPO 2020).

¹⁶³² *Paris Convention (1883)*.

¹⁶³³ WIPO, *Paris Convention: Member States* (WIPO 1883).

¹⁶³⁴ *Berne Convention (1886)*.

¹⁶³⁵ WIPO, *Berne Convention: Member States* (WIPO 1886).

¹⁶³⁶ *GATT (1948)*.

International law instruments	Objectives of the international law instruments ¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments ¹⁶³¹
<i>United Nations' Universal Declaration of Human Rights</i> (1948). ¹⁶³⁷	A common standard of achievement for all peoples and all nations pertaining to human rights.	SA has been a member of the UN since 1945. The <i>UDHR</i> does not create direct legal obligations for countries. SA voted in favour of the <i>UDHR</i> in 1948. Australia, India, and Mexico voted in favour of the <i>UDHR</i> in 1948.¹⁶³⁸ Together, the <i>ICCPR</i>, <i>ICESCR</i> and the <i>UDHR</i>, form the so-called 'International Bill of Human Rights'.
<i>Lisbon System: Lisbon Agreement</i> (1958)¹⁶³⁹ and <i>Geneva Act</i> (2015).¹⁶⁴⁰	The <i>Lisbon Agreement</i> provides for the protection of AOO, that is, the "geographical denomination of a country, region, or locality, which serves to designate a product originating therein, the quality or characteristics of which are due exclusively or essentially to the geographic environment, including natural and human factors". The <i>Geneva Act</i>, which amended the <i>Lisbon Agreement</i>, establishes an international system of registration and protection for both AOO and GI.	SA is not a contracting party to the <i>Lisbon Agreement</i> or the <i>Geneva Act</i> (the <i>Lisbon System</i>). Mexico only acceded to the Lisbon Agreement in 1964. Australia, Namibia and India are not contracting parties to the <i>Lisbon System</i>.

¹⁶³⁷ *UDHR (1948)*.

¹⁶³⁸ UN, *UN Bill of Human Rights: Member States* (UN 1976).

¹⁶³⁹ *Lisbon Agreement (1958)*.

¹⁶⁴⁰ *Geneva Act (2015)*.

International law instruments	Objectives of the international law instruments ¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments ¹⁶³¹
<i>International Convention for the Protection of New Varieties of Plants</i> (1961). ¹⁶⁴¹	The <i>UPOV Convention</i> provides and promotes an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants for the benefit of society.	Accession to 1978 Act, 1981. SA has not yet acceded to the latest Act of 1991. India and Namibia have not acceded to the <i>UPOV Convention</i> . Australia and Mexico respectively acceded to the <i>UPOV Convention</i> in 1989 and 1997. ¹⁶⁴²
<i>Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations</i> (1961). ¹⁶⁴³	The Rome Convention secures protection in performances for performers, in phonograms for producers of phonograms, and in broadcasts for broadcasting organisations. The WIPO is responsible for the administration of the Convention, jointly with the ILO and UNESCO.	SA, India, Namibia and Mali are not party to the <i>Rome Convention</i> . Mexico and Australia respectively ratified and acceded to the Convention in 1964 and 1992. ¹⁶⁴⁴
<i>Convention Concerning the Protection of the World Cultural and Natural Heritage</i> (1972). ¹⁶⁴⁵	This <i>UNESCO Convention</i> links, in a single document, the concepts of nature conservation and the preservation of cultural properties. The Convention recognises the way in which people interact with nature, and the fundamental need to preserve the balance between the two.	SA ratified the <i>CPWCNH</i> in 1997. Australia, Mali Mexico, Namibia respectively ratified the instrument in 1974, 1977, 1984, and 2000. ¹⁶⁴⁶

¹⁶⁴¹ *UPOV Convention* (1961).

¹⁶⁴² UPOV, *UPOV Convention: Member States* (UPOV 1978)

¹⁶⁴³ *Rome Convention* (1961).

¹⁶⁴⁴ WIPO *Rome Convention: Member States*.

¹⁶⁴⁵ Convention for the Protection of the World Cultural and Natural Heritage (1972).

¹⁶⁴⁶ UNESCO, *CPWCNH: Member States* (UNESCO 1972).

International law instruments	Objectives of the international law instruments¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments¹⁶³¹
<i>UN International Covenant on Civil and Political Rights (1976).</i> ¹⁶⁴⁷	Deals with the right of self-determination in respect of political status, economic, social, and cultural development.	Signature, 1994, Ratification/Accession, 1998. Mali, India, Australia, Mexico, and Namibia respectively accessed to the <i>UNICCPR</i> in 1974, 1979, 1980, 1981, and 1994. ¹⁶⁴⁸ Together, the <i>ICCPR</i> , <i>ICESCR</i> , and the <i>UDHR</i> , form the so-called 'International Bill of Human Rights'.
<i>UN International Covenant on Economic, Social and Cultural Rights (1976).</i> ¹⁶⁴⁹	Deals with the right of self-determination in respect of political status, economic, social and cultural development.	Signature, 1994, Ratification/Accession, 2015. Mali, India, Australia Mexico Namibia respectively acceded to the <i>ICESCR</i> in 1974, 1975, 1979, 1981, and 1994. ¹⁶⁵⁰ Together, the <i>ICCPR</i> , <i>ICESCR</i> and the <i>UDHR</i> , form the so-called 'International Bill of Human Rights'.
<i>Budapest Treaty (1977).</i> ¹⁶⁵¹	All states party to the treaty are obliged to recognise microorganisms deposited as a part of the patent procedure, irrespective of where the depository authority is located.	Accession, 1997. In force, 1997. Australia, Mexico, India acceded to the treaty in 1987, 2000, and 2001 respectively. Mali and Namibia have not signed the treaty. ¹⁶⁵²
<i>African Charter on Human and Peoples' Rights (1981).</i> ¹⁶⁵³	Promote and protect human rights and basic freedoms in the African continent.	Accession, 1996. Mali and Namibia are also member states. ¹⁶⁵⁴

¹⁶⁴⁷ *ICCPR (1976).*

¹⁶⁴⁸ UN *UN Bill of Human Rights: Member States.*

¹⁶⁴⁹ *ICCPR (1976).*

¹⁶⁵⁰ UN *UN Bill of Human Rights: Member States.*

¹⁶⁵¹ *Budapest Treaty (1977).*

¹⁶⁵² WIPO, *Budapest Treaty: Member States* (WIPO 1977).

¹⁶⁵³ African Charter on Human and Peoples' Rights (1981).

¹⁶⁵⁴ AU, *African Charter on Human and Peoples' Rights: Member States* (AU 1981).

International law instruments	Objectives of the international law instruments ¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments ¹⁶³¹
<i>ILO Convention 169</i> (1989). ¹⁶⁵⁵	Applies to indigenous and tribal peoples in independent countries whose social, cultural, and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations.	Not ratified by SA. The ILO is a specialised agency of the UN. Only Mexico has ratified the <i>ILO C169 Convention</i> . ¹⁶⁵⁶
<i>Convention on Biological Diversity</i> (1992). ¹⁶⁵⁷	The conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.	Ratified, 1995. In force, 1996. Australia, India, Mexico and Namibia respectively ratified the <i>CBD</i> in 1993, 1994, 1994, and 1997. ¹⁶⁵⁸
<i>TRIPS Agreement</i> (1994). ¹⁶⁵⁹	The most comprehensive multilateral agreement on IP. It sets out the minimum standards of IP protection to be provided by each member state.	As WTO member, SA signed the <i>TRIPS Agreement</i> in 1994. In 2016, as WTO member, SA accepted the 2005 Protocol which amended the <i>TRIPS Agreement</i> by the insertion of art 31 ^{bis} , as well as an annex and appendix. Australia, India, Mali, Mexico, and Namibia all acceded to the <i>TRIPS Agreement</i> in 1995. ¹⁶⁶⁰

¹⁶⁵⁵ *ILO C169 (1989)*.

¹⁶⁵⁶ UN, *ILO C169: Member States* (UN 1989).

¹⁶⁵⁷ *CBD (1992)*.

¹⁶⁵⁸ UN *CBD: Member States*.

¹⁶⁵⁹ *TRIPS Agreement (1994)*.

¹⁶⁶⁰ *WTO Agreement (1995)*.

International law instruments	Objectives of the international law instruments ¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments ¹⁶³¹
<i>Trademark Law Treaty (1994).</i> ¹⁶⁶¹	Standardises and streamlines national and regional trademark registration procedures. This is achieved through the simplification and harmonisation of certain features of those procedures, thus making trademark applications and the administration of trademark registrations in multiple jurisdictions less complex and more predictable.	SA signed the <i>TLT</i> in 1994. Mexico signed the <i>TLT</i> in 1994 and Australia acceded to the <i>TLT</i> in 1997. India, Mali and Namibia are not signatories to the <i>TLT</i> . ¹⁶⁶²
<i>WIPO Copyright Treaty (1996).</i> ¹⁶⁶³	Deals with the protection of works and the rights of their authors in the digital environment. In addition to the rights recognised by the <i>Berne Convention</i> , they are granted certain economic rights.	Signature, 1997. Not in force. Namibia signed the <i>WCT</i> in 1996 and Mexico, Australia and India respectively acceded to the <i>WCT</i> in 2000, 2007, and 2018. ¹⁶⁶⁴
<i>WIPO Performances and Phonograms Treaty (1996).</i> ¹⁶⁶⁵	Deals with the rights of two kinds of beneficiaries, particularly in the digital environment: (i) performers (actors, singers, musicians, etc.); and (ii) producers of phonograms (persons or legal entities that take the initiative and have the responsibility for the fixation of sounds).	Signature, 1997. Not in force. Namibia signed the <i>WPPT</i> in 1996. Mexico signed the <i>WPPT</i> in 1997. Australia acceded to <i>WPPT</i> in 2007. India acceded to the <i>WPPT</i> in 2018. ¹⁶⁶⁶

¹⁶⁶¹ *Trademark Law Treaty (1994).*

¹⁶⁶² WIPO, *TLT: Member States* (WIPO 1994)

¹⁶⁶³ *WCT (1996).*

¹⁶⁶⁴ WIPO *WCT: Member States.*

¹⁶⁶⁵ *WPPT (1996).*

¹⁶⁶⁶ WIPO *WPPT: Member States.*

International law instruments	Objectives of the international law instruments¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments¹⁶³¹
<i>International Treaty on Plant Genetic Resources for Food and Agriculture</i> (2001). ¹⁶⁶⁷	The conservation and sustainable use of all plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use.	No. Not in force. Mali and Namibia; and Australia and India ratified the treaty in 2001 and 2002. Mexico is not a signatory. ¹⁶⁶⁸
<i>Patent Cooperation Treaty</i> (2001). ¹⁶⁶⁹	To seek patent protection for an invention simultaneously in each of many countries by filing an 'international' patent application. Such an application may be filed by anyone who is a national or resident of a <i>PCT</i> contracting state. It may generally be filed with the national patent office of the contracting state of which the applicant is a national or resident, or, at the applicant's option, with the International Bureau of WIPO in Geneva.	Accession, 1998. Entry into force, 1999. Australia, Mali, Namibia and Mexico are all parties to the <i>PCT</i> . ¹⁶⁷⁰
<i>Doha Declaration on the TRIPS Agreement and Public Health</i> (2001). ¹⁶⁷¹	To achieve major reform in the international trading system through the introduction of lower trade barriers and revised trade rules in respect of public health.	As WTO member, SA signed the <i>Doha Declaration on the TRIPS Agreement and Public Health</i> in 2001. Refer to the <i>TRIPS Agreement</i> above.

¹⁶⁶⁷ *ITPGR* (2001).

¹⁶⁶⁸ UN, *ITPGRFA: Member States* (UN 2001).

¹⁶⁶⁹ *PCT* (2001).

¹⁶⁷⁰ WIPO, *PCT: Member States* (WIPO 2001).

¹⁶⁷¹ *Doha Declaration* (2001).

International law instruments	Objectives of the international law instruments ¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments ¹⁶³¹
<i>Convention for the Safeguarding of the Intangible Cultural Heritage</i> (2003).¹⁶⁷²	This <i>UNESCO Convention</i> aims to safeguard the intangible cultural heritage; ensure respect for the intangible cultural heritage of the communities, groups and individuals concerned; to raise awareness at the local, national and international levels, of the importance of the intangible cultural heritage, and of ensuring mutual appreciation thereof; and to provide for international cooperation and assistance.	SA joined <i>UNESCO</i> in 1994. The <i>CSICH</i> has not been ratified by SA. India, Mexico, and Mali ratified the <i>CSICH</i> in 2005 and Namibia in 2007. Australia is not a signatory to the <i>CSICH</i>.¹⁶⁷³
<i>Convention on the Protection and Promotion of the Diversity of Cultural Expressions</i> (2005).¹⁶⁷⁴	This <i>CPPDCE</i> aims to recognise the dual nature, both cultural and economic, of contemporary cultural expressions produced by artists and cultural professionals. Shaping the design and implementation of policies and measures that support the creation, production, distribution of and access to cultural goods and services (the creative industry).	SA ratified the <i>CPPDCE</i> in 2006. India, Mali, Mexico, Namibia, and Australia ratified the <i>CPPDCE</i> in 2006 and Australia in 2009.¹⁶⁷⁵
<i>United Nations Declaration on the Rights of Indigenous Peoples</i> (2007).¹⁶⁷⁶	The most comprehensive international instrument on the rights of indigenous peoples. It establishes a universal framework of minimum standards for the survival, dignity and wellbeing of the indigenous peoples of the world and elaborates on existing human rights standards and fundamental freedoms as they apply to the specific situation of indigenous peoples.	SA has been a member of the UN since 1945 and voted in favour of this Declaration in 2007. The Declaration does not create direct legal obligations for countries. Notably, Australia, New Zealand, Canada, and the USA voted against this Declaration based on IP concerns.

¹⁶⁷² *UNESCO CSICH (2003)*.

¹⁶⁷³ *UNESCO, CSICH: Member States* (UNESCO 2003).

¹⁶⁷⁴ *UNESCO CPPDCE (2005)*.

¹⁶⁷⁵ *UNESCO, CPPDCE: Member States* (UNESCO 2005)

¹⁶⁷⁶ *DRIP (2007)*.

International law instruments	Objectives of the international law instruments¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments¹⁶³¹
<i>Nagoya Protocol</i> (2010). ¹⁶⁷⁷	Aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way.	Signed, 2011; ratified, 2014. In force, 2014. Australia is not a party to this protocol. India, Mexico and Namibia ratified the protocol in 2014 and Mali in 2016. ¹⁶⁷⁸
<i>Swakopmund Protocol</i> (2010). ¹⁶⁷⁹	Protects traditional knowledge holders against any infringement of their rights as recognised by this Protocol; protects expressions of folklore against misappropriation, misuse, and unlawful exploitation beyond their traditional context.	SA is not a party to this Protocol. This is a regional instrument (Southern Africa) of which Namibia is a signatory.
<i>Beijing Treaty</i> (2012). ¹⁶⁸⁰	Deals with the intellectual property rights of performers in audiovisual performances.	SA is not a party to this treaty which is not yet in force. Mexico and Namibia signed the treaty in 2012, and Mali ratified it in 2018. ¹⁶⁸¹
Organisations		
WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (WIPO-IGC). ¹⁶⁸²		

¹⁶⁷⁷ *Nagoya Protocol (2010).*

¹⁶⁷⁸ UN, *Nagoya Protocol: Member States* (UN 2010).

¹⁶⁷⁹ *Swakopmund Protocol (2010).*

¹⁶⁸⁰ *Beijing Treaty (2012).*

¹⁶⁸¹ WIPO, *Beijing Treaty: Member States* (WIPO 2012).

¹⁶⁸² WIPO IGC Background Brief - No 2.

International law instruments	Objectives of the international law instruments¹⁶³⁰	South Africa, Australia, India, Mexico, Namibia and Mali's position on these instruments¹⁶³¹
World Trade Organisation (WTO). ¹⁶⁸³	Deals with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably, and freely as possible.	SA became a member in 1995. Australia, India, Mali, Mexico, and Namibia also joined the WTO in 1995. The WTO replaced the GATT in 1995. ¹⁶⁸⁴

¹⁶⁸³ *WTO Agreement (1995).*

¹⁶⁸⁴ *WTO, WTO: Member States (WTO 1995)*

REFERENCES

Literature

't Hoen 2002 *Chi J Int'l L*

't Hoen E "TRIPS, pharmaceutical patents, and access to essential medicines: A long way from Seattle to Doha" 2002 *Chi J Int'l L* 27-46

Abate and Kronk *Climate change and indigenous knowledge*

Abate RS and Kronk EA (eds) *Climate change and indigenous knowledge* 1st ed (Edward Elgar Cheltenham, UK 2013)

Amechi 2015 *PER/PELJ*

Amechi EP "Leveraging traditional knowledge on the medicinal uses of plants within the patent system: the digitisation and disclosure of knowledge in South Africa" 2015 *PER/PELJ* 3072-3101

Anderson *Indigenous/Traditional Knowledge & Intellectual Property*

Anderson J *Indigenous/Traditional Knowledge & Intellectual Property* (2010) available at www.law.duke.edu/cspd/ accessed 16 December 2021

Arewa 2006 *Marq I P L Rev*

Arewa OB "TRIPS and Traditional Knowledge: Local Communities, Local Knowledge, and Global Intellectual Property Frameworks" 2006 *Marq I P L Rev* 156-180

Ayu 2006 *MqJBL*

Ayu MR "How does Australia regulate the use of geographical indication for products other than wines and spirits?" 2006 *MqJBL* 1-21

Baker 2018 *North Carolina Central University Science & Intellectual Property Law Rev*

Baker K "Indigenous Appropriation and Protections Provided by Intellectual Property Law" 2018 *North Carolina Central University Science & Intellectual Property Law Rev* 111-129

Barrera-Bassols "Linking Ethnopedology and Geopedology: A Synergistic Approach to Soil Mapping. Case Study in an Indigenous Community of Central Mexico"

Barrera-Bassols N "Linking Ethnopedology and Geopedology: A Synergistic Approach to Soil Mapping. Case Study in an Indigenous Community of Central Mexico" in J.A. Z *et al* (eds) *Geopedology* 1st ed (Springer Switzerland 2016) 167-181

Beatty 2015 *Estudios de Economía*

Beatty E "Globalization and Technological Capabilities: Evidence from Mexico's Patent Records ca. 1870-1911" 2015 *Estudios de Economía* 45-65

Biber-Klemm and Cottier *Rights to plant genetic resources and traditional knowledge*

Biber-Klemm S and Cottier T (eds) *Rights to plant genetic resources and traditional knowledge: Basic issues and perspectives* 1st ed (CABI Publishers Oxfordshire; Cambridge, MA 2006)

Birnie *et al International Law and the Environment*

Birnie PW, Boyle AE and Redgwell C *International Law and the Environment* 3rd ed (Oxford University Press Oxford; New York 2009)

Boateng 2013 *Law & Society Review*

Boateng B "The Hand of the Ancestors: Time, Cultural Production, and Intellectual Property Law" 2013 *Law & Society Review* 943-973

Boland-DeVito 2020 *Fordham IP, M&E L J*

Boland-DeVito J "Fashion(ing) a Political Statement: A Review of the Legal & Social Issues that Arise from Banned Political Clothing and Other Controversial Fashion Items in Light of the US Supreme Court's Decision in *Minnesota Voters Alliance v Mansky*" 2020 *Fordham IP, M&E L J* 493-537

Boyle *Shamans, Software, and Spleens*

Boyle J *Shamans, Software, and Spleens: Law and the Construction of the Information Society* 1st ed (Harvard University Press Cambridge, Mass. 1997)

Boyle 2003 *Law & Contemp Probs*

Boyle J "The Second Enclosure Movement and the Construction of the Public Domain" 2003 *Law & Contemp Probs* 33-74

Boyle *The Public Domain*

Boyle J *The Public Domain* 1st ed (Yale University Press New Haven & London 2008)

Bratspies 2006 *American Indian Law Review*

Bratspies RM "The new discovery doctrine: Some thoughts on property rights and traditional knowledge" 2006 *American Indian Law Review* 315-340

Brown 2017 *Collection Management*

Brown K "The Role of an Indigenous Nations Library Program and the Advancement of Indigenous Knowledge" 2017 *Collection Management* 196-207

Brown *Who owns native culture?*

Brown MF *Who owns native culture?* 1st ed (Harvard University Press Cambridge, Massachusetts 2003)

Burra and Babu *Locating India in the Contemporary International Legal Order*

Burra S and Babu RR (eds) *Locating India in the Contemporary International Legal Order* 1st ed (Springer India 2018)

Chander and Sunder 2004 *California Law Review*

Chander A and Sunder M "The Romance of the Public Domain" 2004 *California Law Review* 1333-1374

Chon 2006 *UC Davis L Rev*

Chon M "Intellectual Property from below: Copyright and Capability for Education" 2006 *UC Davis L Rev* 805-847

Contreras 2018 *Science*

Contreras JL "The Anticommons at Twenty: Concerns for Research Continue" 2018 *Science* 335-337

Coombe and Malik "Rethinking the Work of Geographical Indications in Asia"

Coombe RJ and Malik SA "Rethinking the Work of Geographical Indications in Asia: Addressing Hidden Geographies of Gendered Labor" in Calbodi I and Wee Loon N-L (eds) *Geographical Indications at the Crossroads of Trade, Development, and Culture* (Cambridge Cambridge 2017)

Cordes 2014 *Cultural Heritage Law*

Cordes S "The UNESCO Convention for the Safeguarding of Intangible Cultural Heritage and Australian Museums – Expectations, Realities and Disappointments" 2014 *Cultural Heritage Law* 1-7

Cox *et al* 2020 *Journal of Documentation*

Cox AM, Tiago M, Jorge and Rivera G, Gibrán "Reassessing the LIS approach to traditional knowledge: learning from Xochimilco, Mexico city" 2020 *Journal of Documentation* 1-18

Craig 2017 *Am U Int'l L Rev*

Craig CJ "Globalizing User Rights-Talk: On Copyright Limits and Rhetorical Risks" 2017 *Am U Int'l L Rev* 2-71

Craig "Critical Copyright Law & the Politics of IP"

Craig CJ "Critical Copyright Law & the Politics of IP" in Christodoulidis E, Dukes R and Goldoni M (eds) *Research Handbook on Critical Legal Theory* 1st ed (Edward Elgar Cheltenham, UK 2019) 1-30

Craig 2019 *European Intellectual Property Review*

Craig CJ "Meanwhile, in Canada... A Surprisingly Sensible Copyright Review" 2019 *European Intellectual Property Review* 1-13

Cullet 2007 *Hum Rts Q*

Cullet P "Human rights and intellectual property protection in the TRIPS Era" 2007 *Hum Rts Q* 403-430

Currie and De Waal *The Bill of Rights Handbook*

Currie I and De Waal J *The Bill of Rights Handbook* 6th ed (Juta Cape Town 2013)

David and Brierley *Major legal systems in the world today*

David R and Brierley JEC *Major legal systems in the world today* 3rd ed (Stevens & Sons London 1985)

De Castro *et al Environmental Governance in Latin America*

De Castro F, Hogenboom B and Baud M (eds) *Environmental Governance in Latin America* 1st ed (Palgrave MacMillan Hampshire, UK 2016)

de Haas 2011 *South African Journal of Bioethics and Law*

de Haas M "Social and cultural issues in human tissue use in South Africa"
2011 *South African Journal of Bioethics and Law* 24-28

Dean *Handbook of South African Copyright Law*

Dean OH *Handbook of South African Copyright Law* 1st ed (Juta Landsdown
1987)

Dean 2006 *WIPO Magazine*

Dean OH "The Return of the Lion" 2006 *WIPO Magazine* 1-32

Dhar and Anuradha 2005 *Economic and Political Weekly*

Dhar B and Anuradha RV "Substantive Patent Law Treaty: What It Means for
India" 2005 *Economic and Political Weekly* 1346-1354

Draho P "Sunshine in a Bottle? Geographical Indications, the Australian Wine
Industry, and the Promise of Rural Development"

Draho P "Sunshine in a Bottle? Geographical Indications, the Australian Wine
Industry, and the Promise of Rural Development" in Calboli I and Wee Loon
N-L (eds) *Geographical Indications at the Crossroads of Trade, Development,
and Culture* (Cambridge University Press Cambridge, UK 2017) 257-281

Du Bois 2013 *European Property Law Journal*

Du Bois M "Recognition and Protection of Traditional Knowledge Interests as
Property in South African Law" 2013 *European Property Law Journal* 144-170

Du Bois 2018 *PER/PELJ*

Du Bois M "Justificatory Theories for Intellectual Property Viewed through the
Constitutional Prism" 2018 *PER/PELJ* 1-38

Du Plessis 1999 *Law, Democracy & Development*

Du Plessis ED "The TRIPS agreement and South African legislation: The case of the parallel importation of medicines" 1999 *Law, Democracy & Development* 55-67

Du Plessis 2011 *PER/PELJ*

Du Plessis WJ "African Indigenous Land Rights in a Private Ownership Paradigm" 2011 *PER/PELJ*

Du Plessis and Lubbe 2021 *Constitutional Court Review*

Du Plessis WJ and Lubbe H "Compensation for Expropriation in South Africa, and International Law" 2021 *Constitutional Court Review*

Ellen "Cultivar diversity and management as traditional environmental knowledge"

Elmahjub "An Islamic Perspective on the Theories of Intellectual Property"

Elmahjub E "An Islamic Perspective on the Theories of Intellectual Property" in Fitzgerald B and Gilchrist J (eds) *Copyright Perspectives: Past, Present and Prospect* 1st ed (Springer Cham 2015) 51-84

Emmett "Roman Law, Private Property and the Public Domain: Lessons for Copyright Policy"

Emmett AR "Roman Law, Private Property and the Public Domain: Lessons for Copyright Policy" in Fitzgerald B and Gilchrist J (eds) *Copyright Perspectives: Past, Present and Prospect* 1st ed (Springer Cham 2015) 17-29

Erickson *et al Copyright and the value of the public domain*

Erickson K *et al Copyright and the value of the public domain: An empirical assessment* (2015) available at <https://assets.publishing.service.gov.uk/government/uploads/system/uploads>

/attachment_data/file/561543/Copyright-and-the-public-domain.pdf accessed
24 November 2018

Fernana *Qissat Dhul-Qurnain: Tale of the two-horned one*

Fernana SAH *Qissat Dhul-Qurnain: Tale of the two-horned one: A book of the tale of Alexander the Great, his travels, battles and conquests* 1st ed (Awqaf SA, Madina Institute South Africa 2015)

Fisher and Rigamonti 2005 *Harvard Law School*

Fisher WW and Rigamonti CP "The South Africa AIDS controversy: A case study in patent law and policy." 2005 *Harvard Law School* 1-56

Fitzgerald and Gilchrist *Copyright Perspectives: Past, Present and Prospect*

Fitzgerald B and Gilchrist J (eds) *Copyright Perspectives: Past, Present and Prospect* 1st ed (Springer Cham, Germany 2015)

Garcia and McCrary 2019 *Alabama Law Review*

Garcia K and McCrary J "A Reconsideration of Copyright's Term" 2019 *Alabama Law Review* 4-52

Gertner 2019 *Thunderbird International Business Review*

Gertner RK "The impact of cultural appropriation on destination image, tourism, and hospitality" 2019 *Thunderbird International Business Review* 873-877

Gervais "Traditional Innovation and the Ongoing Debate on the Protection of Geographical Indications"

Gervais D "Traditional Innovation and the Ongoing Debate on the Protection of Geographical Indications" in Drahos P and Frankel S (eds) *Indigenous people's innovation: Intellectual property pathways to development* 1st ed (ANU Press Acton, ACT, Australia 2012) 121-146

Gervais "A Look at the Geneva Act of the Lisbon Agreement: A Missed Opportunity?"

Gervais D "A Look at the Geneva Act of the Lisbon Agreement: A Missed Opportunity?" in Calboli I and Wee Loon N-L (eds) *Geographical Indications at the Crossroads of Trade, Development, and Culture* (Cambridge University Press Cambridge, UK 2017) 122-144

Ghidini *et al* *TRIPS and Developing Countries: Towards a new IP World Order?*

Ghidini G, Peritz RJR and Ricolfi M (eds) *TRIPS and Developing Countries: Towards a new IP World Order?* 1st ed (Edward Elgar Cheltenham, UK 2014)

Ghosh 2003 *Cardozo Journal of International and Comparative Law*

Ghosh S "Reflections on the Traditional Knowledge Debate" 2003 *Cardozo Journal of International and Comparative Law* 497-510

Giblin and Weatherall *What if we could reimagine copyright?*

Giblin R and Weatherall K (eds) *What if we could reimagine copyright?* 1st ed (ANU Press Acton, Australia 2017)

Giovannini *et al* 2011 *Soc Sci Med*

Giovannini P *et al* "Do pharmaceuticals displace local knowledge and use of medicinal plants? Estimates from a cross-sectional study in a rural indigenous community, Mexico" 2011 *Soc Sci Med* 928-936

Gonzalez 2019 *T Jefferson L Rev*

Gonzalez OB "Cultural Appropriation: The Native American Artist Struggle for Intellectual Property Protection in Canada, Mexico, and the United States" 2019 *T Jefferson L Rev* 1-27

Graber and Burri-Nenova *Intellectual Property and Traditional Cultural Expressions in a Digital Environment*

Graber CB and Burri-Nenova M (eds) *Intellectual Property and Traditional Cultural Expressions in a Digital Environment* 1st ed (Edward Elgar Cheltenham, UK 2008)

Gupta 2019 *Journal of Intellectual Property Rights Law*

Gupta A "Indian Traditional Knowledge: Leeway towards Sustainable Development" 2019 *Journal of Intellectual Property Rights Law* 35-41

Hardin 1968 *Science*

Hardin G "The tragedy of the commons" 1968 *Science* 1243-1248

Harley *et al Microbiology*

Harley JP, Prescott LM and Klein DA *Microbiology* 3rd ed (WCB, McGraw-Hill Boston, Mass.; London 1999)

Harms 2009 *THRHR*

Harms LTC "A Few Negative Trends in the Field of Intellectual Property Rights" 2009 *THRHR* 175-191

Harms 2013 *Potchefstroom Electronic Law Journal*

Harms LTC "'Originality' and 'Reproduction' in copyright law with special reference to photographs" 2013 *Potchefstroom Electronic Law Journal* 488-614

Harms 2013 *De Jure*

Harms LTC "Plain packaging and its impact on trademark law" 2013 *De Jure* 387-400

Hart 1955 *The Philosophical Review*

Hart HLA "Are there any natural rights?" 1955 *The Philosophical Review* 175-191

Helfer 2004 *Yale J Int'l L*

Helfer LR "Regime shifting: The TRIPS agreement and new dynamics of international intellectual property lawmaking" 2004 *Yale J Int'l L* 2-83

Helfer and Austin *Human Rights and Intellectual Property: Mapping the Global Interface*

Helfer LR and Austin GW *Human Rights and Intellectual Property: Mapping the Global Interface* 1st ed (Cambridge University Press New York, USA 2011)

Heller and Salzman *Mine!*

Heller M and Salzman J *Mine! : how the hidden rules of ownership control our lives* 1st ed (Doubleday New York 2021)

Hernandez-Forcada 2002 *BYU L Rev*

Hernandez-Forcada R "The Effect of International Treaties on Religious Freedom in Mexico" 2002 *BYU L Rev* 301-310

Hess and Ostrom *Understanding Knowledge as a Commons*

Hess C and Ostrom E (eds) *Understanding Knowledge as a Commons: From Theory to Practice* 1st ed (MIT Press Cambridge, Massachusetts, USA 2007)

Hublin 2017 *Max Planck Research*

Hublin JJ "Face to face with Neanderthals" 2017 *Max Planck Research* 18-25

Jacobs *Patents of traditional medicine inventions and their relationship with traditional knowledge associated with genetic resources in Namibia*

Jacobs CS *Patents of traditional medicine inventions and their relationship with traditional knowledge associated with genetic resources in Namibia: Proposals for legal reform* (LLM-dissertation University of Cape Town 2017)

Jakkrit *Patent rights in pharmaceuticals in Developing Countries*

Jakkrit K *Patent rights in pharmaceuticals in Developing Countries : Major challenges for the future* 1st ed (Edward Elgar Cheltenham, UK; Northampton, MA 2010)

Janke *Minding Culture*

Janke T *Minding Culture: Case studies on intellectual property and traditional cultural expressions* (2003) available at https://www.wipo.int/edocs/pubdocs/en/tk/781/wipo_pub_781.pdf accessed 9 March 2019

Janke 2018 *International Journal of Rural Law and Policy*

Janke T "From Smokebush to Spinifex: Indigenous traditional knowledge and the commercialisation of plants" 2018 *International Journal of Rural Law and Policy*

Janke and Sentina *Indigenous Knowledge: Issues for protection and management*

Janke T and Sentina M *Indigenous Knowledge: Issues for protection and management* (2017) available at https://www.ipaustralia.gov.au/sites/default/files/ipaust_ikdiscussionpaper_28march2018.pdf accessed

Keeling *Intellectual property rights in EU law*

Keeling DT *Intellectual property rights in EU law* 1st ed (Oxford University Press Oxford; New York 2003)

Kulke and Rothermund *A History of India*

Kulke H and Rothermund D *A History of India* 3rd ed (Routledge New York 2002)

Kurin 2014 *Intangible Cultural Heritage*

Kurin R "U.S. Consideration of the Intangible Cultural Heritage Convention" 2014 *Intangible Cultural Heritage* 325-358

Laaksonen *Indigenous Arts Policy: Initiatives and Challenges*

Laaksonen A *Indigenous Arts Policy: Initiatives and Challenges* (2012) available at <https://www.ndpculture.org/media/W1siZiIsIjIwMTQvMDcvMzAvN2IwZjc0YTIsOV9EX0FydDIySW5kaWdlbm91c0FydHNQb2xpY3kucGRmIl1d?sha=227271d236a27c9e> accessed 27 June 2020

Lange 1981 *Law & Contemp Probs*

Lange D "Recognizing the public domain" 1981 *Law & Contemp Probs* 147-178

Lessing 2017 *Dedman School of Law Research Paper, SMU*

Lessing KN "Commencement of Cultural Destruction Reparations Orders in Criminal Warfare: Precedence of the ICC Al Faqi Al Mahdi Judgment" 2017 *Dedman School of Law Research Paper, SMU*

Lewis-Clemmensen VE *Indigenous peoples' self-determination - Market-inclusion or not?* (Masters-dissertation Uppsala University 2019)

Li 2019 *Law, Innovation and Technology*

Li Y "The Age of Remix and Copyright Law Reform" 2019 *Law, Innovation and Technology* 1-34

Litman 1990 *Emory L J*

Litman J "The Public Domain" 1990 *Emory L J* 965-1023

Litman 2018 *The Cambridge Law Journal*

Litman J "What we don't see when we see Copyright as Property" 2018 *The Cambridge Law Journal* 536-558

Lobel 2015 *Texas Law Review*

Lobel O "The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property" 2015 *Texas Law Review* 790-851

Locke *Two Treatises of Government*

Locke J *Two Treatises of Government* 1st ed (Awnfham Churchill Amen-Corner, London 1690)

Low *Khoisan Healing*

Low C *Khoisan Healing: Understandings, Ideas and Practices* (D Phil-thesis University of Oxford 2004)

Maasz *et al A Digital Indigenous Knowledge Preservation Framework*

Maasz D *et al A Digital Indigenous Knowledge Preservation Framework: The 7C Model—Repositioning IK Holders in the Digitization of IK* (Springer Nature Singapore 2018)

Macmillan "Human Rights, Cultural Property and Intellectual Property: Three concepts in search of a relationship"

Macmillan F "Human Rights, Cultural Property and Intellectual Property: Three concepts in search of a relationship" in Graber CB and Burri-Nenova M (eds) *Intellectual Property and Traditional Cultural Expressions in a Digital Environment* 1st ed (Edward Elgar Cheltenham, UK 2008) 73-96

Malherbe *The bio-prospecting, access and benefit-sharing regulations*

Malherbe C *The bio-prospecting, access and benefit-sharing regulations*
(Department of Environmental Affairs and Tourism Pretoria 2009)

Martin-Bariteau 2019 *UBC L Rev*

Martin-Bariteau F "The Idea of Property in Intellectual Property" 2019 *UBC L Rev* 3-36

Masouyé *Guide to the Berne Convention for the Protection of Literary and Artistic Works*

Masouyé C *Guide to the Berne Convention for the Protection of Literary and Artistic Works* (1978) available at https://www.wipo.int/edocs/pubdocs/en/copyright/615/wipo_pub_615.pdf
accessed 4 April 2020

Medaglia *et al* 2018 *Ottawa Faculty of Law Working Paper*

Medaglia J *et al* "Comparative Study of the Nagoya Protocol, the Plant Treaty and the UPOV Convention: The Interface of Access and Benefit Sharing and Plant Variety Protection" 2018 *Ottawa Faculty of Law Working Paper* 1-49

Meltzoff and Williamson "Imitation and modelling"

Meltzoff AN and Williamson RA "Imitation and modelling" in Haith MM and Benson JB (eds) *Reference module in neuroscience and biobehavioral psychology* 1st ed (Elsevier London, UK 2017) 2-10

Montagnani and Trapova 2019 *Mitchell Hamline Law Review*

Montagnani ML and Trapova A "Copyright and Human Rights in the Ballroom: A Minuet between the US and the EU" 2019 *Mitchell Hamline Law Review* 1-46

Motsi 2017 *Journal of the South African Society of Archivists*

Motsi A "Preservation of endangered archives: A case of timbuktu manuscripts"
2017 *Journal of the South African Society of Archivists* 1-27

Mowad 2017 *Case W Res L Rev*

Mowad L "Copyright Act [Revisions] Welcome []: The Lax Copyright in Live
Performance's Last Writ" 2017 *Case W Res L Rev* 1303-1341

Mugabe "Intellectual property protection and traditional knowledge"

Mugabe J "Intellectual property protection and traditional knowledge" 1999
*World Intellectual Property Organization Intellectual Property and Human
Rights Geneva, WIPO* 97-125

Mukhtar and Fernana *The book of healing diseases, both hidden and apparent in
the human body*

Mukhtar A and Fernana SAH *The book of healing diseases, both hidden and
apparent in the human body : African written heritage : a 17th century
Timbuktu manuscript* 1st ed (Awqaf SA, Madina Institute South Africa 2015)

Munzer and Raustiala 2009 *Cardozo Arts & Ent L J*

Munzer SR and Raustiala K "The uneasy case for Intellectual Property Rights
in Traditional Knowledge" 2009 *Cardozo Arts & Ent L J* 37-97

Munzer and Simon 2009 *Wm & Mary Bill Rts J*

Munzer SR and Simon PC. "Territory, Plants, and Land-Use Rights Among the San
of Southern Africa: A Case Study in Regional Biodiversity, Traditional Knowledge,
and Intellectual Property" 2009 *Wm & Mary Bill Rts J* 831-894

Myburgh and Prinsloo *Indigenous public law in KwaNdebele*

Myburgh AC and Prinsloo MW *Indigenous public law in KwaNdebele* 1st ed (JL
van Schaik Pretoria 1985)

Nash 2000 *Berkeley Technology Law Journal*

Nash D "South Africa's Medicines and Related Substances Control Amendment Act of 1997" 2000 *Berkeley Technology Law Journal* 485-502

Ncube "Calibrating copyright for creators and consumers: Promoting distributive justice and Ubuntu"

Ncube CB "Calibrating copyright for creators and consumers: Promoting distributive justice and Ubuntu" in Gibling R and Weatherall K (eds) *What if we could reimagine copyright?* 1st ed (ANU Press Acton, ACT, Australia 2017) 253-280

Nkomo 2014 *Law, Democracy and Development*

Nkomo M "Regional integration in the area of intellectual property: The case for Southern African Development Community involvement" 2014 *Law, Democracy and Development* 317-333

Nomani and Rahman 2011 *Journal of Intellectual Property Rights*

Nomani ZM and Rahman F "Intellection of trade secret and innvation laws in India" 2011 *Journal of Intellectual Property Rights* 341-350

Nwauche 2010 *PER/PELJ*

Nwauche ES "Protecting Expressions of Folklore within the right to culture in Africa" 2010 *PER/PELJ* 49-92

Nwauche 2014 *J World Intellect Prop*

Nwauche ES "The Swakopmund Protocol and the Communal Ownership and Control of Expressions of Folklore in Africa" 2014 *J World Intellect Prop* 191-201

Nwauche 2015 *Marq IP L Rev*

Nwauche ES "The Emerging Right to Communal Intellectual Property" 2015 *Marq IP L Rev* 225-243

Nwauche 2015 *Queen Mary Journal of Intellectual Property*

Nwauche ES "The protection of indigenous terms and expressions by the Merchandise Marks Act in South Africa" 2015 *Queen Mary Journal of Intellectual Property* 214-225

Nwauche *The Protection of Traditional Cultural Expressions in Africa*

Nwauche ES *The Protection of Traditional Cultural Expressions in Africa* 1st ed (Springer International Publishing AG Switzerland 2017)

Oguamanam 2018 *J World Intellectual Prop*

Oguamanam C "Wandering footloose: Traditional knowledge and the "Public Domain" revisited" 2018 *J World Intellectual Prop* 1-20

Oguamanam 2019 *African Journal of Information and Communication*

Oguamanam C "Towards a tiered or differentiated approach to protection of traditional knowledge (TK) and traditional cultural expressions (TCEs) in relation to the intellectual property system." 2019 *African Journal of Information and Communication* 1-24

Okediji 2018 *Centre for International Governance Innovation*

Okediji RL "Traditional Knowledge and the Public Domain" 2018 *Centre for International Governance Innovation* 1-28

Packer *et al* 2019 *Journal of Ethnobiology and Ethnomedicine*

Packer J *et al* "Building partnerships for linking biomedical science with traditional knowledge of customary medicines: a case study with two

Australian Indigenous communities" 2019 *Journal of Ethnobiology and Ethnomedicine* 2-11

Pai and Singla "Vanity GIs: India's Legislation on Geographical Indications and the Missing Regulatory Framework"

Pai Y and Singla T "Vanity GIs: India's Legislation on Geographical Indications and the Missing Regulatory Framework" in Calboli I and Wee Loon N-L (eds) *Geographical Indications at the crossroads of trade, development and culture* (Cambridge University Press Cambridge, UK 2017) 305-333

Paterson 2020 *South African Journal of Environmental Law and Policy*

Paterson A "The interface between customary rights and environmental legislation." 2020 *South African Journal of Environmental Law and Policy* 134-160

Patnaik *et al* 2018 *J World Intellectual Prop*

Patnaik A, Jongerden J and Ruivenkamp G "Rights or ability: Access to plant genetic resources in India" 2018 *J World Intellectual Prop* 157-175

Pérez-Nicolás *et al* 2017 *Economic Botany*

Pérez-Nicolás M *et al* "Patterns of Knowledge and Use of Medicinal Plants in Santiago Camotlán, Oaxaca, Mexico" 2017 *Economic Botany* 209-223

Persad 2019 *Yale Journal of Health Policy, Law, and Ethics*

Persad G "Examining Pharmaceutical Exceptionalism: Intellectual Property, Practical Expediency, and Global Health" 2019 *Yale Journal of Health Policy, Law, and Ethics* 157-190

Peterson 2016 *Archives of Natural History*

Peterson AT, Navarro-Sigüenza AG and Gordillo-Martínez A "The development of ornithology in Mexico and the importance of access to scientific information" 2016 *Archives of Natural History* 294-304

Pistorius 2006 *PER/PELJ*

Pistorius T "Developing Countries and copyright in the information age. The functional Equivalent Implementation of the WCT" 2006 *PER/PELJ* 149-197

Pistorius "Exceptions and Limitations"

Pistorius T "Exceptions and Limitations" in Van der Merwe A *et al* (eds) *Law of Intellectual Property in South Africa* 2nd ed (LexisNexis Johannesburg 2017) 289-310

Pistorius and Visser 1995 *South African Law Journal*

Pistorius T and Visser C "Designs Act 195 of 1993: Aesthetic and Functional Designs, Spare Parts, and Integrated Circuits" 1995 *South African Law Journal* 606-613

Pozzo 2020 *Laws*

Pozzo B "Fashion between Inspiration and Appropriation" 2020 *Laws* 1-26

Priya and Kurian 2018 *Science, Technology and Society*

Priya R and Kurian CM "Regulating Access and Protecting Traditional Health Knowledge through Intellectual Property Rights? Issues from a Holistic Health Systems Perspective" 2018 *Science, Technology and Society* 504-529

Raath 2018 Interview

Raath AWG 2018 "Onslaught on the public domain" Interview, Bloemfontein

Raath and Brits 2018 *TSAR/JSAL*

Raath AWG and Brits PS "Inheemse Kennisstelsels, Kulturele Erfenisreg en Regsbeginsels" 2018 *TSAR/JSAL* 739-754

Raath and Brits 2019 *Tydskrif vir Geesteswetenskappe*

Raath AWG and Brits PS "Inheemse kennis as beskermbare kulturele identiteitsbate: Kanttekeninge by die beoogde beskerming van inheemse kennis in Suid-Afrika" 2019 *Tydskrif vir Geesteswetenskappe* 345-365

Raath and Brits 2019 *THRHR*

Raath AWG and Brits PS "Outeursreg in tradisionele werk en inheemse kennis – Implikasies van die tweede Wetsontwerp op Beskerming, Bevordering, Ontwikkeling en Bestuur van Inheemse Kennis (2016)" 2019 *THRHR* 120-135

Ragavan 2019 *Texas A&M University School of Law Legal Studies Research Paper*

Ragavan S "A Case Against the Use Doctrine in Trademark Law" 2019 *Texas A&M University School of Law Legal Studies Research Paper* 1-48

Raghavender 2019 *Journal of Intellectual Property Law & Practice*

Raghavender GR "The origin and development of a moral rights regime in India" 2019 *Journal of Intellectual Property Law & Practice* 305-311

Ramos de Robles *et al* 2018 *Cultural Studies of Science Education*

Ramos de Robles SL, Garibay-Chávez G and Curiel-Ballesteros A "Identification, collection and consumption of weeds and wild vegetables in Mexican communities: institutionalized local ancestral indigenous knowledge as ecological literacy, place and identity" 2018 *Cultural Studies of Science Education* 1011-1030

Rangnekar 2006 *Economic and Political Weekly*

Rangnekar D "No pills for poor people? Understanding the disembowelment of India's patent regime" 2006 *Economic and Political Weekly* 409-417

Rens *Report on the South African Open Copyright Review*

Rens A *Report on the South African Open Copyright Review* (2010) available at <http://ip-unit.org/wp-content/uploads/2010/07/opencopyrightreport1.pdf> accessed 5 April 2018

Rodil and Winschiers-Theophilus 2018 *International Journal of Intangible Heritage*

Rodil K and Winschiers-Theophilus H "Why is she naked? An Iterative Refinement of the Digitisation of ICH with the OvaHimba Tribe in Namibia" 2018 *International Journal of Intangible Heritage* 143-154

Sandoval-Rivera 2019 *Southern African Journal of Environmental Education*

Sandoval-Rivera JCA "The legend of Achaneh: Socio-ecological knowledge in the oral tradition of fisherwomen in Veracruz, Mexico" 2019 *Southern African Journal of Environmental Education* 1-12

Shah 2014 *Global Health Governance*

Shah S "Plants, Patents and Biopiracy: The Globalization of Intellectual Property Rights and Traditional Medicine" 2014 *Global Health Governance* 3-121

Sharma 2019 *J World Intellectual Prop*

Sharma S "RCEP and Trans-Pacific Intellectual Property Norms: Implications for India" 2019 *J World Intellectual Prop* 313-348

Shelton 2019 *Latin Americanist*

Shelton L "Creating Modern Medicine and the Modern Nation in Northern Mexico: A Comparative Analysis of Nuevo León and Sonora, 1860–1930" 2019 *Latin Americanist* 399-424

Shiva *Biopiracy*

Shiva V *Biopiracy. The Plunder of Nature and Knowledge* 2nd ed (North Atlantic Books Berkeley, California 2016)

Sidhu 2017 *Environmental Policy & Law*

Sidhu BK "Yoga as Traditional Medicinal Knowledge: Revisiting the Legal Debate on IPR and Public Domain" 2017 *Environmental Policy & Law* 99-105

Singhal 2008 *Journal of Intellectual Property Law & Practice*

Singhal S "Geographical indications and traditional knowledge" 2008 *Journal of Intellectual Property Law & Practice* 732-738

Sinjela and Ramcharan 2005 *International Journal on Minority and Group Rights*

Sinjela M and Ramcharan R "Protecting Traditional Knowledge and Traditional Medicines of Indigenous Peoples Through Intellectual Property Rights: Issues, Challenges and Strategies" 2005 *International Journal on Minority and Group Rights* 1-24

Stoeckel 2003 *Sydney Law Review*

Stoeckel K "Western Australia v. Ward & (and) Ors" 2003 *Sydney Law Review* 255-272

Sukdaven *et al African written intellectual heritage*

Sukdaven M, Fernana SAH and Mukhtar A *African written intellectual heritage* 1st ed (Awqaf SA, Madina Institute South Africa 2015)

Sun 2019 *Nw J Tech & IP*

Sun H "Copyright Law as engine of public interest protection" 2019 *Nw J Tech & IP*

Sunder 2007 *Law & Contemp Probs*

Sunder M "The Invention of Traditional Knowledge" 2007 *Law & Contemp Probs* 97-124

Torsen 2006 *American Journal of Comparative Law*

Torsen M "'Anonymous, Untitled, Mixed Media': Mixing Intellectual Property Law with Other Legal Philosophies to Protect Traditional Cultural Expressions" 2006 *American Journal of Comparative Law* 173-198

Traynor *et al* *Protecting and Promoting Indigenous Peoples Rights in Academic Research Processes*

Traynor C *et al* *Protecting and Promoting Indigenous Peoples Rights in Academic Research Processes* (Natural Justice 2018)

Van der Merwe 2014 *Journal of Intellectual Property Law & Practice*

Van der Merwe A "South and Southern Africa—Recent developments in the legal protection of Traditional Knowledge and Traditional Cultural Expressions" 2014 *Journal of Intellectual Property Law & Practice* 411-418

Van Der Walt and Du Bois 2013 *Stellenbosch Law Review*

Van Der Walt AJ and Du Bois M "The importance of the commons in the context of intellectual property" 2013 *Stellenbosch Law Review* 31-54

Van Der Walt and Shay 2014 *PER/PELJ*

Van Der Walt AJ and Shay RM "Constitutional analysis of intellectual property" 2014 *PER/PELJ* 052-612

Vargas 1996 *Ga J Int'L & Comp L*

Vargas JA "Mexico's Legal Revolution: An Appraisal of Its Recent Constitutional Changes, 1988-1995" 1996 *Ga J Int'L & Comp L* 497-559

Vargas 2008 *San Diego Legal Studies*

Vargas JA "Introduction to Mexico's Legal System" 2008 *San Diego Legal Studies* 1-64

Vargas 2009 *San Diego Legal Studies*

Vargas JA "Mexican Law in California and Texas Courts and the (Lack of) Application of Foreign Law by Mexican Courts" 2009 *San Diego Legal Studies* 1-44

Verhoef *Die rol van die bonatuurlike (wonders, tekens en kragte) in die lewe van lidmate van die NG Kerk in Afrika, Cala-Gemeente, Transkei*

Verhoef AJ *Die rol van die bonatuurlike (wonders, tekens en kragte) in die lewe van lidmate van die NG Kerk in Afrika, Cala-Gemeente, Transkei* (Masters Stellenbosch University 1979)

Verhoef *The fair dealing doctrine in respect of digital books*

Verhoef G *The fair dealing doctrine in respect of digital books* (LLM-dissertation UNISA 2017)

Vézina 2019 *Centre for International Governance Innovation*

Vézina B "Curbing Cultural Appropriation in the Fashion Industry" 2019 *Centre for International Governance Innovation* 1-24

Visser 2002 *S Afr Mercantile L*

Visser C "Some Thoughts on Making Intellectual Property Work for Traditional Knowledge" 2002 *S Afr Mercantile L* J 656-687

Vrdoljak 2017 *American Society of International Law*

Vrdoljak AF "Introductory note to Prosecutor v Ahmad Al Faqi Al Mahdi: Judgment and Sentence & Reparations Order (Int'l Crim Ct)" 2017 *American Society of International Law* 18-79

Weatherall 2018 *The University of Sydney Law School: Legal Studies Research Paper*

Weatherall K "Author-centred copyright enforcement?" 2018 *The University of Sydney Law School: Legal Studies Research Paper Series No 18/63* 1-15

Weeks 2021 *Constitutional Court Review*

Weeks SM "Constitutionally Transforming South Africa by Amalgamating Customary and Common Law: Ramuhovhi, the Proprietary Consequences of Marriage and Land as Property" 2021 *Constitutional Court Review* 165-205

Wendland and Jiao 2018 *African Indigenous Medical Knowledge and Human Health*

Wendland W and Jiao F "Intellectual Property Rights and Traditional Medical Knowledge in Africa" 2018 *African Indigenous Medical Knowledge and Human Health*

Young-Ing *Intellectual Property Rights, legislated protection, sui generis models and ethical access in the transformation of indigenous traditional knowledge*

Young-Ing G *Intellectual Property Rights, legislated protection, sui generis models and ethical access in the transformation of indigenous traditional knowledge* (PhD-thesis University of British Columbia 2006)

Yu 2019 *Intellectual Property Law Review*

Yu PK "TRIPS and its Contents" 2019 *Intellectual Property Law Review* 1-39

Yu "Challenges to the Development of a Human Rights Framework for Intellectual Property "

Yu PK "Challenges to the Development of a Human Rights Framework for Intellectual Property " in Torremans PLC (ed) *Intellectual Property and Human Rights* 4th ed (Kluwer Law International 2020) 1-20

South African case law

Century City Apartments Property Services CC and Another v Century City Property Owners Association 2009 ZASCA 157 (SCA)

Disney Enterprises Inc v Griesel NO and Others 895 JOC (T)

Fax Directories (Pty) Ltd v SA Fax listings CC 1990 (2) SA 164 (D)

First National Bank of SA Ltd t/a Wesbank v Commissioner, South African Revenue Services 2002 (4) SA 768 (CC)

Galago Publishers (Pty) Ltd and Another v Erasmus 1989 (1) SA 276 (A)

Gongqose and Others v Minister of Agriculture, Forestry and Others, Gongqose and S (1340/16, 287/17) [2018] ZASCA 87; [2018] 3 All SA 307 (SCA); 2018 (5) SA 104 (SCA); 2018 (2) SACR 367 (SCA)

Groupe LFE (SA) (Pty) Ltd v Swartland Winery Ltd and Another 2011 (SCA)

Laugh it Off Promotions CC v South African Breweries International (Finance) BV 2006 (1) SA 144 (CC)

Law Society of South Africa v Minister for Transport 2011 (1) SA 400 (CC)

Lucky Star Ltd v Lucky Brands (Pty) Ltd (164/2015) [2016] 77 (SCA)

MEC for Education, KwaZulu-Natal v Pillay 2008 (1) SA 474 (CC)

Moneyweb (Pty) Ltd v Media 24 Ltd and Another 2016 ZAGPJHC 81 (GJ)

National Credit Regulator v Opperman 2013 (2) SA 1 (CC)

Ramuhovhi & Others v President of the Republic of South Africa & Others (CCT194/16) [2017] ZACC 41; 2018 (2) BCLR 217 (CC); 2018 (2) SA 1 (CC)

Oudekraal Estates (Pty) Ltd v The City of Cape Town 2009 ZASCA 85 (SCA)

Phumelela Gaming and Leisure Ltd v Gründling 2007 (6) SA 350 (CC)

PMASA and Another: In re Ex parte President of RSA and Others 1999 (4) SA 788 (T)

PMASA and others v President of RSA and others 2000 (2) SA 674 (CC)

Prinsloo v Van der Linde 1997 (3) SA 1012 (CC)

S v Bhulwana, S v Gwadiso (CCT12/95, CCT11/95) [1995] ZACC 11 (CC)

S v Mhlungu 1995 (3) SA 391 (CC)

S v Makwanyane and Another 1995 (2) SACR 1 (CC)

Tongoane v Minister of Agriculture and Land Affairs 2010 6 SA 214 (CC)

Zantsi v Council of State, Ciskei 1995 (4) SA 615 (CC)

Australian case law

Akiba on behalf of the Torres Strait Regional Seas Claim Group v Commonwealth of Australia (Aus) [2013] HCA 33

Bulun Bulun v R & T Textiles Pty Ltd (Aus) [1998] 157 ALR 193

Hospital Products v United States Surgical Corporation (Aus) [1984] 156 CLR 41

JT International SA v Commonwealth (Aus) [2012] HCA 43 (2012)

Milpurrruru, G & Ors v Indofurn P/L & Ors (Aus) [1994] FCA 975; 130 ALR 659

Onus v Alcoa Australia Ltd (Aus) [1981] 149 CLR 27

Walker v New South Wales (Aus) (1994) 182 CLR 45

Western Australia v Brown (Aus) [2014] HCA 8

Western Australia v Ward (Aus) [2002] HCA 28

Yumbulul, T v Reserve Bank of Australia, Aboriginal Artists Agency Ltd & Anor (Aus)
[1991] FCA 448; 21 IPR 481

Canadian case law

Borowski v Canada (Can) (1987) 57 DLR (4th) 231

Florence A Deeks v HG Wells and others (Can) [1932] UKPC 66

Law Society of Upper Canada v Skapinker (Can) (1984) 8 CRR 193

Lovelace v Canada (Can) (1985) 68 ILR 17

Théberge v Galerie d'Art du Petit Champlain Inc (Can) [2002] 2 SCR 336

Chinese case law

Google Inc (Appellant) v Wang Xin (Appellee) (China) Gao Min Zhong Zi No 1211
(2013)

CJEU case law

Pelham GmbH and Others v Ralf Hütter and Florian Schneider-Esleben (CJEU)
ECLI:EU:C:2019:624

Windsurfing Chiemsee Produktions- und Vertriebs GmbH (WSC) v Boots- und Segelzubehör Walter Huber and Franz Attenberger (CJEU) ECLI:EU:C:1999:230

French case law

Antik Batik v Isabel Marant (France) 15/03456 (2015)

ICC case law

The Prosecutor v Ahmad Al Faqi Al Mahdi (ICC) ICC-01/12-01/15 (2015)

Indian case law

Christian Louboutin Sas v Ashish Bansal & Anr (India) CS(COMM) 503 (2016)

Olga Tellis & Ors v Bombay Municipal Corporation & Ors (India) 1985 SCR Supl (2) 51

State of Rajasthan & Ors Etc Etc v Union of India Etc (India) (1978) 1 SCR 1

Toyota Jidosha Kabushiki Kaisha v M/S Prius Auto Industries Limited (India) CIVIL APPEAL NOS5375-5377 (2017)

UK case law

Deeks v Wells (UK) [1932] UKPC 66

Temple Island Collections Ltd v New English Teas (UK) [2012] EWPCC

USA case law

Alameda Films v Authors Rights Restorat (USA) 331 F3d 472 (5th Cir 2003)

Aleynikov v Goldman Sachs Grp, Inc (USA) Civ No 2:12:-cv-5994-KM-MAH (DNJ Mar 23, 2018)

Authors Guild v Google Inc (USA) 804 F3d 202, 208 (2d Cir 2015)

Baker v Selden (USA) 101 US 99 (1879)

Bikram's Yoga College of India v Evolation Yoga (USA) 803 F3d 1032 (9th Cir) (2015)

Bridgeport Music, Inc v Dimension Films (USA) 410 F3d 792 (2005)

Emerson v Davies et al (USA) 13 Hunt Mer Mag 558 (CCD Mass 1845)

Equal Emp't Opportunity Comm'n v Abercrombie & Fitch Stores, Inc (USA) 135 S Ct 2028 (2015)

Estate of Tasunke Witko aka Crazy Horse v Hornell Brewing Co (USA) [2001] 156 F Supp 2d 1092

Folsom v Mash (USA) 9 F Cas 342 (CCD Mass 1841)

Lawrence Golan, et al v Eric H Holder, Jr, Attorney General, et al (USA) 565 US 302 (2012)

USA Minn Voters Alliance v Mansky (USA) 138 S Ct 1876 (2018)

Moore v Regents of Univ of California (USA) 793 P2d 479 (1990)

Navajo Nation, Corp v Urban Outfitters, Inc (USA) 935 F Supp 2d 1147 (DNM 2013)

Nichols v Universal Pictures Corp (USA) 34 F2d 145 (SDNY 1929)

Open Source Yoga Unity v Choudhury (USA) 74 USPQ2d 1434 (2005)

South African legislation

Constitution Eighteenth Amendment Bill B18-2021

British Imperial Copyright Act 1911

Communal Land Rights Act 11 of 2004

Companies Act 71 of 2008

Constitution of the Republic of South Africa 200 of 1993

Constitution of the Republic of South Africa, 1996

Copyright Act 98 of 1978

Copyright Amendment Bill 2018

Criminal Procedure Act 51 of 1977

Designs Act 195 of 1993

Forest Act 122 of 1984

Intellectual Property Laws Amendment Act 28 of 2013

Intellectual Property Laws Amendment Bill 2010

*Intellectual Property Rights from Publicly Financed Research and Development Act
51 of 2008*

Medicines and Medical Devices Regulatory Authority Act 132 of 1998

Medicines and Related Substances Amendment Act 59 of 2002

Medicines and Related Substances Amendment Act 72 of 2008

Medicines and Related Substances Amendment Act 14 of 2015

Medicines and Related Substances Control Act 101 of 1965

Medicines and Related Substances Control Amendment Act 90 of 1997

Merchandise Marks Act 17 of 1941

National Credit Act 34 of 2005

National Environmental Management Biodiversity 10 of 2004

National Heritage Resources Act 25 of 1999

Patents Act 57 of 1978

Patents Amendments Act 58 of 2002

Patents Amendment Act 20 of 2005

Performers' Protection Act 11 of 1967

Performers' Protection Bill 2016

Plant Breeders' Rights Act 51 of 1976

Plant Breeders' Rights Act 12 of 2018

Promotion, Development and Management of Indigenous Knowledge Act Act 6 of 2019

Road Accident Fund Amendment Act 19 of 2005

Trademarks Act 194 of 1993

Trust Property Control Act 57 of 1988

Australian legislation

Australia Act 142 of 1985

Commonwealth of Australia Constitution Act 1900

Conservation and Land Management Act 126 of 1984

Copyright Act 63 of 1968

National Parks and Wildlife Act 80 of 1974

Native Title Act 110 of 1993

EU legislation

Council Directive 89/104/EEC (EU) 89/104/EEC

Indian legislation

Biological Diversity Act 18 of 2003

Constitution 1947

Copyright Act 14 of 1957

Forest Rights Act 2 of 2007

Geographical Indications of Goods (Registration and Protection) Act 48 of 1999

Patents Act (India) 39 of 1970

Protection of Plant Varieties and Farmers' Rights Act 53 of 2001

Seeds Bill 2019

Mexican legislation

Federal Law on Copyright 1997

Law on Industrial Property 1991

Political Constitution of the Mexican United States 1917

Namibia legislation

*Access to Biological and Genetic Resources and Associated Traditional Knowledge
Act 2 of 2017*

Industrial Property Act 1 of 2012

UK legislation

Copyright Designs and Patents Act 48 of 1988

Statute of Anne 8 Anne, c. 19 (1710)

USA legislation

Bayh-Dole Act 1980

Copyright Act 1976

Digital Millennium Copyright Act 1998

Indian General Allotment Act 388 of 1887

US Code

International instruments

African Charter on Human and Peoples' Rights (1981)

Agreement between the European Community and the United Mexican States on the mutual recognition and protection of designations for spirit drinks L 152/16, 1997 (1997)

Agreement on Trade-Related Aspects of Intellectual Property Rights Annex 1C to the WTO Agreement (1994)

Beijing Treaty on Audiovisual Performances (2012)

Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (1977)

Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the Convention on Biological Diversity (2010)

Charter of Fundamental Rights of the European Union 2012/C 326/02 (2012)

Convention for the Protection of Industrial Property (1883)

Convention for the Protection of Literary and Artistic Works WIPO Lex TRT/BERNE/001 (1886)

Convention for the Protection of the World Cultural and Natural Heritage (1972)

Convention for the Safeguarding of the Intangible Cultural Heritage (2003)

Convention on Biological Diversity (1992)

Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2005)

Copyright Treaty (1996)

Directive on the Harmonisation of certain aspects of Copyright and related rights in the Information Society 2001/29/EU (2001)

Doha WTO Ministerial Declaration WT/MIN(01)/DEC/1 2000 (2001)

General Agreement on Tariffs and Trade (1948)

Geneva Act of the Lisbon Agreement (2015)

International Convention for the Protection of New Varieties of Plants (1961)

International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations (1961)

International Labour Organisation's Indigenous and Tribal Peoples Convention C169 (1989)

International Treaty on Plant Genetic Resources for Food and Agriculture (2001)

Lisbon Agreement for the Protection of Appellations of Origin and their International Registration (1958)

Patent Cooperation Treaty (2001)

Performances and Phonograms Treaty (1996)

Swakopmund Protocol on the protection of traditional knowledge and expressions of folklore (2010)

The Hague Agreement Concerning the International Deposit of Industrial Designs (1925)

Trademark Law Treaty (1994)

United Nations' International Covenant on Economic, Social and Cultural Rights (1976)

United Nations' Declaration on the Rights of Indigenous Peoples 107th plenary meeting, UN, 13 September 2007 (2007)

United Nations' International Covenant on Civil and Political Rights (1976)

United Nations' Universal Declaration on Human Rights (1948)

World Trade Organisation Agreement (1995)

Government publications

Constitutional Review Committee on Section 25 in Parlement of 27 February 2018

IKS Policy of South Africa in WIPO/GRTKF/IC/9/11 of 2004

GN R567 in GG 20025 of 7 May 1999

GN R977 in GG 20370 of 13 August 1999

Proc R49 in GG 6519 of 30 April 1999

GN 683 in GG 28877 of 2006

GN 911 in GG 36807 of 2013

GN 988 in GG 96984 of 2013

GN 1073 in GG of 2013

Internet Databases

AU 1981 *African Charter on Human and Peoples' Rights: Member States*

<https://au.int/sites/default/files/treaties/36390-sl->

[african_charter_on_human_and_peoples_rights_2.pdf](https://au.int/sites/default/files/treaties/36390-sl-african_charter_on_human_and_peoples_rights_2.pdf)

AU 1981 *African Charter on Human and Peoples' Rights: Member States*

<https://au.int/sites/default/files/treaties/36390-sl->

[african_charter_on_human_and_peoples_rights_2.pdf](https://au.int/sites/default/files/treaties/36390-sl-african_charter_on_human_and_peoples_rights_2.pdf) accessed 7 August 2020

Boyd *et al* 1997

<http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=1994060991>

Boyd MR *et al* 1997 *Antiviral naphthoquinone compounds, compositions and uses thereof* (Aus)

<http://pericles.ipaustralia.gov.au/ols/auspat/applicationDetails.do?applicationNo=1994060991> accessed 13 November 2022

Boyd *et al* 1997 <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&p=1&u=/netahtml/PTO/srchnum.html&r=1&f=G&l=50&d=PALL&s1=5672607.PN>.

Boyd MR *et al* 1997 *Antiviral naphthoquinone compounds, compositions and uses thereof* (USA)

<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&p=1&u=/netahtml/PTO/srchnum.html&r=1&f=G&l=50&d=PALL&s1=5672607.PN>. accessed 13 November 2022

Cambridge University Press 2018 <https://dictionary.cambridge.org/>

Cambridge University Press 2018 *Cambridge Dictionary*
<https://dictionary.cambridge.org/> accessed 30 July 2018

Carter *et al* 1992
<https://patentimages.storage.googleapis.com/1c/c4/91/36d72020b5ed5a/US5124349.pdf>

Carter CG *et al* 1992 *Storage stable azadirachtin formulation*
<https://patentimages.storage.googleapis.com/1c/c4/91/36d72020b5ed5a/US5124349.pdf> accessed 3 March 2019

CSIR India 2001
<http://www.tkdil.res.in/tkdil/langdefault/common/Home.asp?GL=Eng>

CSIR India 2001 *Traditional Knowledge Digital Library*
<http://www.tkdil.res.in/tkdil/langdefault/common/Home.asp?GL=Eng> accessed 9 June 2020

Das and Cohly 1995
<https://patentimages.storage.googleapis.com/c5/4a/0f/bd0d3ab5478eaa/US5401504.pdf>

Das SK and Cohly HHP 1995 *Use of turmeric in wound healing*
<https://patentimages.storage.googleapis.com/c5/4a/0f/bd0d3ab5478eaa/US5401504.pdf> accessed 3 March 2019

Locke *et al* 1994
https://worldwide.espacenet.com/publicationDetails/biblio?CC=EP&NR=0436257B1&KC=B1&date=&FT=D&locale=en_EP

Locke JC *et al* 1994 *Method for controlling fungi on plants by the aid of a hydrophobic extracted neem oil*
https://worldwide.espacenet.com/publicationDetails/biblio?CC=EP&NR=0436257B1&KC=B1&date=&FT=D&locale=en_EP accessed 3 March 2019

Project Gutenberg 1971 <https://www.gutenberg.org/>

Project Gutenberg 1971 *Project Gutenberg* <https://www.gutenberg.org/>
accessed 7 Augustus 2020

Reader's Digest 1996 <https://www.rd.com/>

Reader's Digest 1996 *Reader's Digest Dictionary* <https://www.rd.com/>
accessed 13 November 2022

UN 1976 <https://indicators.ohchr.org/>

UN 1976 *UN Bill of Human Rights: Member States* <https://indicators.ohchr.org/>
accessed 7 August 2020

UN 1989
https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:312314:NO

UN 1989 *ILO C169: Member States*
https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INSTRUMENT_ID:312314:NO accessed 30 July 2020

UN 1992 <https://www.cbd.int/information/parties.shtml>

UN 1992 *CBD: Member States* <https://www.cbd.int/information/parties.shtml>
accessed 9 July 2020

UN 2001 <http://www.fao.org/plant-treaty/countries/membership/en/>

UN 2001 *ITPGRFA: Member States* <http://www.fao.org/plant-treaty/countries/membership/en/> accessed 30 July 2020

UN 2010 <https://www.cbd.int/abs/nagoya-protocol/signatories/>

UN 2010 *Nagoya Protocol: Member States* <https://www.cbd.int/abs/nagoya-protocol/signatories/> accessed 30 July 2020

UNESCO 1972 *CPWCNH:* *Member* *States*
<http://whc.unesco.org/en/statesparties/> accessed 18 July 2020

UNESCO 1988 *Timbuktu - UNESCO World Heritage Site*
<https://whc.unesco.org/en/list/119/> accessed 8 August 2020

UNESCO 2003 *CSICH:* *Member* *States*

<http://www.unesco.org/eri/la/convention.asp?language=E&KO=17116&order=alpha> accessed 13 November 2022

UNESCO 2005 *CPPDCE:* *Member* *States*
<http://www.unesco.org/eri/la/convention.asp?KO=31038&language=E&order=alpha>
 =alpha accessed 7 August 2020

UNESCO 2019 *Talavera ceramics making process*
<https://ich.unesco.org/en/RL/artisanal-talavera-of-puebla-and-tlaxcala-mexico-and-ceramics-of-talavera-de-la-reina-and-el-puente-del-arzobispo-spain-making-process-01462> accessed 7 August 2020

408

UPOV 1978 *UPOV* *Convention:* *Member* *States*
https://www.upov.int/edocs/pubdocs/en/upov_pub_423.pdf accessed 7
August 2020

WIPO 1883 https://www.wipo.int/treaties/en/ActResults.jsp?act_id=31

WIPO 1883 *Paris* *Convention:* *Member* *States*
https://www.wipo.int/treaties/en/ActResults.jsp?act_id=31 accessed 28 June
2020

WIPO 1886 https://www.wipo.int/treaties/en/ActResults.jsp?act_id=26

WIPO 1886 *Berne* *Convention:* *Member* *States*
https://www.wipo.int/treaties/en/ActResults.jsp?act_id=26 accessed 28 June
2020

WIPO 1977
https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=7

WIPO 1977 *Budapest* *Treaty:* *Member* *States*
https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=7
accessed 30 July 2020

WIPO 1994
https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=5

WIPO 1994 *TLT:* *Member* *States*
https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=5
accessed 30 July 2020

WIPO 1996
https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=16

WIPO 1996 *WCT:* *Member* *States*
https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=16
accessed 11 June 2020

WIPO 1996

https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=20

WIPO 1996 *WPPT: Member States*

https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=20

accessed 11 June 2020

WIPO 2001 https://www.wipo.int/pct/en/paris_wto_pct.html

WIPO 2001 *PCT: Member States*

https://www.wipo.int/pct/en/paris_wto_pct.html accessed 30 July 2020

WIPO 2012

https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=841

WIPO 2012 *Beijing Treaty: Member States*

https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=841

accessed 30 July 2020

WIPO 2015 <https://www.wipo.int/ipdl/en/search/lisbon/search-struct.jsp>

WIPO 2015 *Lisbon Express: GI and AOO Database*

<https://www.wipo.int/ipdl/en/search/lisbon/search-struct.jsp> accessed 7

August 2020

WIPO 2015 <https://www.wipo.int/ipadvantage/en/details.jsp?id=2651>

WIPO 2015 *A tree and TK: A recipe for development*

<https://www.wipo.int/ipadvantage/en/details.jsp?id=2651> accessed 7 August

2020

WIPO 2017 <https://ich.unesco.org/en/RL/craft-of-the-miller-operating-windmills-and-watermills-01265> accessed 27 June 2020

WIPO 2017 *Craft of the miller operating windmills and watermills*
<https://ich.unesco.org/en/RL/craft-of-the-miller-operating-windmills-and-watermills-01265>

WIPO 2018 *Disputing a Name, Developing a Geographical Indication*
<https://www.wipo.int/ipadvantage/en/details.jsp?id=2691> accessed 7 August 2020

WIPO 2020 https://www.wipo.int/members/en/details.jsp?country_id=126

WIPO 2020 *Namibia: Country Information*
https://www.wipo.int/members/en/details.jsp?country_id=126 accessed 17 June 2020

WIPO 2020
https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=17

WIPO 2020 *Rome Convention: Member States*
https://www.wipo.int/treaties/en/ShowResults.jsp?lang=en&treaty_id=17
accessed 7 August 2020

WIPO 2020 <https://wipolex.wipo.int/en/main/legislation>

WIPO 2020 *WIPO Lex Database: Laws of Member States*
<https://wipolex.wipo.int/en/main/legislation> accessed 28 June 2020

WIPO IGC 2018
https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_37/wipo_grtkf_ic_37_inf_7.pdf

WIPO IGC 2018 *Glossary of key terms related to IP and GR, TK and TCE*
https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_37/wipo_grtkf_ic_37_inf_7.pdf accessed 13 November 2022

WTO 1995 https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm

WTO 1995 *WTO:* *Member* *States*
https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm accessed
1 August 2020

Internet resources

Adams & Adams 2016 <https://www.adams.africa/wp-content/uploads/2016/10/IP-CONSULTATIVE-FRAMEWORK-Adams-Adams-Comments-October-2016.pdf>

Adams & Adams *Adams & Adams' submission on the Intellectual Property Consultative Framework* 2016 <https://www.adams.africa/wp-content/uploads/2016/10/IP-CONSULTATIVE-FRAMEWORK-Adams-Adams-Comments-October-2016.pdf> accessed 12 May 2018

ARIPO 2016 www.aripo.org/resources/.../swakopmund-protocol?...policy-framework-on-access-an...

ARIPO *Policy framework on access and benefit sharing arising from the use of genetic resources in the ARIPO member states: A guide for ARIPO member states* 2016 www.aripo.org/resources/.../swakopmund-protocol?...policy-framework-on-access-an... accessed 5 April 2019

ARIPO 1973 <http://www.aripo.org/>

ARIPO 1973 *African Regional Intellectual Property Organization (ARIPO)* <http://www.aripo.org/> accessed 23 April 2018

Australia Council for the Arts 2018 <https://niaca.com.au/about-national-indigenous-arts-and-cultural-authority/>

Australia Council for the Arts 2018 *National Indigenous Arts and Cultural Authority* <https://niaca.com.au/about-national-indigenous-arts-and-cultural-authority/> accessed 3 August 2020

Australian Law Reform Commission 2015 https://www.alrc.gov.au/wp-content/uploads/2019/08/alrc_126_final_report.pdf

Australian Law Reform Commission *Connection to Country: Review of the Native Title Act 1993 (Cth)* 2015 https://www.alrc.gov.au/wp-content/uploads/2019/08/alrc_126_final_report.pdf accessed 29 May 2020

Bellis 2019 <https://www.thoughtco.com/textile-machinery-industrial-revolution-4076291>

Bellis M 2019 *Textile Industry and Machinery of the Industrial Revolution* <https://www.thoughtco.com/textile-machinery-industrial-revolution-4076291> accessed 1 August 2020

CBD 2005 <https://www.cbd.int/doc/meetings/tk/wg8j-04/information/wg8j-04-inf-18-en.pdf>

CBD *Development of Elements of Sui Generis Systems for the Protection of Traditional Knowledge, Innovations and Practices* 2005 <https://www.cbd.int/doc/meetings/tk/wg8j-04/information/wg8j-04-inf-18-en.pdf> accessed 13 November 2022

Copyright Alliance 2019 <https://www.samro.org.za/news/articles/copyright-alliance-petitions-parliament-over-proposed-new-law>

Copyright Alliance 2019 *Copyright Alliance petitions Parliament over proposed new law* <https://www.samro.org.za/news/articles/copyright-alliance-petitions-parliament-over-proposed-new-law> accessed 10 April 2020

Business Insider 2022 <https://www.businessinsider.co.za/rooibos-industry-pays-out-r122-million-to-kho-and-san-communities-2022-7>

Business Insider 2022 "South Africa's rooibos industry just paid out R12.2 million to the Khoi and San communities"
<https://www.businessinsider.co.za/rooibos-industry-pays-out-r122-million-to-kho-and-san-communities-2022-7> accessed 13 November 2022

Creative Commons 'License' (CCPL) 2002
<<https://creativecommons.org/licenses/by-sa/2.5/za/legalcode>>

Creative Commons 'License' (CCPL)
<<https://creativecommons.org/licenses/by-sa/2.5/za/legalcode>> accessed 22 July 2018

Dean 2012 <<http://blogs.sun.ac.za/iplaw/files/2012/08/Trade-mark-dilution.pdf>>

Dean OH 2012 'Trade-mark dilution laughed off'
<<http://blogs.sun.ac.za/iplaw/files/2012/08/Trade-mark-dilution.pdf>>
accessed 3 August 2020

DSI date unknown <https://www.dst.co.za>

DSI 2020 *Department of Science and Innovation* <https://www.dst.co.za>
accessed 4 April 2020

dti date unknown <https://www.thedti.gov.za/>

dti 2020 *Department of Trade and Industry* <https://www.thedti.gov.za/>
accessed 27 August 2020

Epstein 2011
<http://www.wipo.int/wipo_magazine/en/2011/06/article_0005.html>

Epstein J 2011 'The Future of Publishing – A Veteran's Perspective' WIPO Magazine
<http://www.wipo.int/wipo_magazine/en/2011/06/article_0005.html>
accessed 30 September 2015

Frankel 2011 <https://ssrn.com/abstract=1953033>

Frankel SR 2011 *The Mismatch of Geographical Indications and Innovative Traditional Knowledge* <https://ssrn.com/abstract=1953033> accessed 13 November 2022

Gates 2018 <https://www.gatesnotes.com/Bio>

Gates B 2018 *About Bill* <https://www.gatesnotes.com/Bio> accessed 10 August 2020

Honey Bee Network 2019 <http://www.honeybee.org/>

Honey Bee Network 2019 *Honey Bee Network* <http://www.honeybee.org/> accessed 9 March 2019

ILO 1919 <https://www.ilo.org/global/lang--en/index.htm>

ILO 1919 *International Labour Organisation* <https://www.ilo.org/global/lang--en/index.htm> accessed 30 July 2018

Jansen 2020 <https://www.netwerk24.com/Nuus/Algemeen/reendans-op-bokswyn-erge-khoi-belediging-20200919>

Jansen J 2020 *Reëndans op bokswyn 'erge Khoi- belediging* <https://www.netwerk24.com/Nuus/Algemeen/reendans-op-bokswyn-erge-khoi-belediging-20200919> accessed 20 September 2020

Mairhofer 2021 chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://www.future-museum.com/wp-content/uploads/2021/06/Case-Cards_Which-digital-strategies-make-sense-in-a-museum-and-how-can-they-enhance-analogue-formats.pdf

Mairhofer M 2021 *CASE CARDS. Which digital strategies make sense in a museum and how can they enhance analogue formats?/how can digitalisation be integrated in a sustainable way in the organisational structure of museums?* chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://www.future-museum.com/wp-content/uploads/2021/06/Case-Cards_Which-digital-

Rooibos Council 2019 *Khoi and San to share in benefits of Rooibos*
<https://sarooibos.co.za/khoi-and-san-to-share-in-benefits-of-rooibos/>

Rooibos Council 2019 *Khoi and San to share in benefits of Rooibos*
<https://sarooibos.co.za/khoi-and-san-to-share-in-benefits-of-rooibos/>
accessed 13 November 2022

SA BI "South Africa's rooibos industry just paid out R12.2 million to the Khoi and San communities" *Business Insider SA* (

Science Literacy Project 2016 <https://gmo.geneticliteracyproject.org/FAQ/whats-controversy-gmos-terminator-seeds/>

Science Literacy Project 2016 *What's the controversy over 'terminator' seeds?*
<https://gmo.geneticliteracyproject.org/FAQ/whats-controversy-gmos-terminator-seeds/> accessed 1 August 2020

Shibata 2016 <https://information.patentepi.org/2-16/history-partial-priority-system-paris-convention/>

Shibata K 2016 *The History of Partial Priority System of the Paris Convention*
<https://information.patentepi.org/2-16/history-partial-priority-system-paris-convention/> accessed 27 August 2020

Suber 2004 <<http://legacy.earlham.edu/~peters/fos/brief.htm>>

Suber P 2004 'A very brief introduction to Open Access'
<<http://legacy.earlham.edu/~peters/fos/brief.htm>> accessed 6 October 2018

UN 1948 <http://www.un.org/en/index.html>

UN 1948 *United Nations* <http://www.un.org/en/index.html> accessed 21 April 2018

UN 2019 <https://www.un.org/development/desa/indigenouspeoples/about-us.html>

UN 2019 *Indigenous Peoples at the UN*
<https://www.un.org/development/desa/indigenouspeoples/about-us.html>
accessed 23 June 2019

UN 2013 <https://www.ohchr.org/Documents/Publications/fs9Rev.2.pdf>

UN 2013 *Indigenous Peoples and the United Nations Human Rights System*
2013 <https://www.ohchr.org/Documents/Publications/fs9Rev.2.pdf> accessed
29 March 2020

UNESCO 1946 <https://en.unesco.org/about-us/introducing-unesco>

UNESCO 1946 *United Nations Educational, Scientific and Cultural Organization*
<https://en.unesco.org/about-us/introducing-unesco> accessed 21 April 2020

UNESCO 2003 <https://ich.unesco.org/en/what-is-intangible-heritage-00003>

UNESCO 2003 *Intangible Cultural Heritage* <https://ich.unesco.org/en/what-is-intangible-heritage-00003> accessed 27 June 2020

UNESCO 2016 <https://whc.unesco.org/en/news/1545/>

UNESCO 2016 *UNESCO Director-General welcomes opening of trial on the destruction of heritage in Timbuktu* <https://whc.unesco.org/en/news/1545/>
accessed 13 November 2022

UPOV 2009 https://www.upov.int/about/en/key_issues.html

UPOV 2009 *UPOV Reply to CBD's draft study*
https://www.upov.int/about/en/key_issues.html accessed 18 April 2020

UPOV 2009
https://www.upov.int/export/sites/upov/about/en/pdf/upov_comments_medaglia_study_final.pdf

UPOV 2009 *Comments of UPOV on CBD Study on the relationship between international instruments pertaining to GR*
https://www.upov.int/export/sites/upov/about/en/pdf/upov_comments_medaglia_study_final.pdf accessed 18 April 2020

USA 2017 <https://tmep.uspto.gov/RDMS/TMEP/current#/current/TMEP-1300d1e632.html>

USA 2017 *Geographic Certification Marks*
<https://tmep.uspto.gov/RDMS/TMEP/current#/current/TMEP-1300d1e632.html> accessed 17 April 2020

Van der Merwe 2015 <<http://www.kisch-ip.co.za/the-intellectual-property-laws-amendment-act-no-28-of-2013-and-its-application-in-respect-of-trade-marks/>>

Van der Merwe A 2015 'The Intellectual Property Laws Amendment Act no. 28 of 2013 and its application in respect of Trade Marks' <<http://www.kisch-ip.co.za/the-intellectual-property-laws-amendment-act-no-28-of-2013-and-its-application-in-respect-of-trade-marks/>> accessed 1 May 2018

Wilson 1979 <<http://char.txa.cornell.edu/IndianTex.htm>>

Wilson K 1979 'History of Textiles' <<http://char.txa.cornell.edu/IndianTex.htm>> accessed 13 November 2022

WIPO 1967 <http://www.wipo.int/portal/en/>

WIPO 1967 *World Intellectual Property Organization*
<http://www.wipo.int/portal/en/> accessed 3 March 2018

WIPO 1967 <<http://www.wipo.int/tk/en/tk/>>

WIPO 1967 'Traditional knowledge' <<http://www.wipo.int/tk/en/tk/>>
accessed 6 March 2018

WIPO 2020 <https://www.wipo.int/trademarks/en/>

WIPO 2020 *Collective Marks* <https://www.wipo.int/trademarks/en/> accessed 1
August 2020

WIPO IGC 2002 <http://www.wipo.int/tk/en/igc/>

WIPO IGC 2002 *WIPO Intergovernmental Committee on Intellectual Property
and Genetic Resources, Traditional Knowledge and Folklore*
<http://www.wipo.int/tk/en/igc/> accessed 10 August 2020

WIPO 1996 http://www.wipo.int/treaties/en/ip/wct/summary_wct.html

WIPO *Summary of the WIPO Copyright Treaty* (1996) available at
http://www.wipo.int/treaties/en/ip/wct/summary_wct.html accessed 9 June
2017

WIPO 2003 chrome-
extension://efaidnbmnnnibpcajpcgicfindmkaj/https://www.wipo.int/edocs/pubdocs/en/tk/785/wipo_pub_785.pdf

WIPO 2003 *Consolidated analysis of the legal protection of tCE / Expressions
of Folklore* chrome-
extension://efaidnbmnnnibpcajpcgicfindmkaj/https://www.wipo.int/edocs/pubdocs/en/tk/785/wipo_pub_785.pdf accessed 13 November 2013

WIPO IGC 2015 www.wipo.int/edocs/mdocs/copyright/en/sccr_19/sccr_19_6.doc

WIPO IGC 2015 *WIPO study on limitations and exceptions for copyright for
educational purposes in the Arab countries*

www.wipo.int/edocs/mdocs/copyright/en/sccr_19/sccr_19_6.doc accessed 11 April 2018

WIPO IGC 2019
https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_39/wipo_grtkf_ic_39_18_prov.pdf

WIPO IGC 2019 *39th Session of the WIPO IGC*
https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_39/wipo_grtkf_ic_39_18_prov.pdf accessed 2 August 2020

WIPO IGC 2019
https://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_39/wipo_grtkf_ic_39_18_prov.pdf

WIPO IGC 2019 *40th Session of WIPO IGC - Intellectual Property and Genetic Resources* <https://www.wipo.int/tk/en/igc/> accessed 1 August 2020

WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>

WIPO IGC 2016 Background Brief - No. 1: Traditional Knowledge and Intellectual Property
<https://www.wipo.int/publications/en/series/index.jsp?id=144> accessed 20 July 2020

WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>

WIPO IGC 2016 Background Brief - No. 2: The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore
<https://www.wipo.int/publications/en/series/index.jsp?id=144> accessed 15 July 2020

WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>

WIPO IGC 2016 Background Brief - No. 5: Intellectual Property and Traditional Handicrafts <https://www.wipo.int/publications/en/series/index.jsp?id=144> accessed 30 July 2020

WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>

WIPO IGC 2016 Background Brief - No. 6: Intellectual Property and Traditional Medical Knowledge <https://www.wipo.int/publications/en/series/index.jsp?id=144> accessed 30 July 2020

WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>

WIPO IGC 2016 Background Brief - No. 7: Customary Law and Traditional Knowledge <https://www.wipo.int/publications/en/series/index.jsp?id=144> accessed 30 July 2020

WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>

WIPO IGC 2016 Background Brief - No. 9: Documentation of Traditional Knowledge and Traditional Cultural Expressions <https://www.wipo.int/publications/en/series/index.jsp?id=144> accessed 30 July 2020

WIPO IGC 2016 <https://www.wipo.int/publications/en/series/index.jsp?id=144>

WIPO IGC 2016 Background Brief - No. 10: Intellectual Property and Genetic Resources <https://www.wipo.int/publications/en/series/index.jsp?id=144> accessed 30 July 2020

World Bank 2020
http://www.tkwb.org/w/index.php/LOCAL_APPLICATION_OF_THE_TECHNIQUE_OF_FLOATING_GARDENS_30

World Bank 2020 *Chinampas*

http://www.tkwb.org/w/index.php/LOCAL_APPLICATION_OF_THE_TECHNIQUE_FLOATING_GARDENS_30 accessed 16 September 2020

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