AN INVESTIGATION INTO THE ATTITUDES OF THE !XUN AND KHWE COMMUNITIES IN SOUTH AFRICA TOWARDS PROTECTION OF INDIGENOUS KNOWLEDGE SYSTEMS: IMPLICATIONS FOR POLICY AND RESEARCH

NORTH WEST UNIVERSITY
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by

OTSILE NTSOANE

Submitted in fulfilment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

in

INDIGENOUS KNOWLEDGE SYSTEMS

FACULTY OF HUMAN AND SOCIAL SCIENCES

NORTH-WEST UNIVERSITY

Supervisor: Professor. H-O KAYA

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External Examiners : Dr K.G NKUMANE & Dr M. MASOGA

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This study was not an easy one. When I started the research I was made aware that it would be the first Doctorate of Philosophy in the area of Indigenous Knowledge Systems in South Africa. I have made it first in the journey never travelled. I give this salutation and respect to those who assisted me during the journey. This research as a backward-forward march was not a simple one. It was not an easy one because I was the first on the road less travelled-tracing the footprints of the indigenous people from the Kgalagadi desert to the land of Kudumane; across the Lekoa (Vaal) River to the Game Reserves of the Kgalagadi trans-frontiers; from the battle fields of Angola and Namibia to the heart of the oppressive South African National Defence Force; to the homes of the people of the wind and sand land. This journey of reconstructing and deconstructing the knowledge basis of the indigenous has not yet ended but thus far I have travelled.

I travelled to locate myself on the intellectual valorising journey in defiance of the western dominant cultural expressions and epistemology. The struggle to decolonise modalities, decolonise methodologies and creating intellectual space for seeing the world through the mind and the twelfth sense of being a conscious being. I am aware of the many inputs that I got throughout my indigenous long life-skills lessons in the many communities that I lived and stayed at. I am indebted to those whom in my early years made me realize that 'being is the essence of to be' but to be or not to be is not a question but to be is the fundamental part of belonging. I belong to the many homes that welcomed me in my endeavour for knowledge of the self. Therefore, in finding oneself one came across the influences of many people. My intellectual life was touched by many and influenced by the few whom I acknowledge in this study, not in order of preference.

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Dedication

"O seka oa re moroa-tooe ho moroa." Morena Moshoeshoe ha a eletsa sechaba ho se tlatlape litokelo tsa Baroa le Bakhothu kapa a tsireletsa seriti sa bona.

I dedicate this thesis to Indigenous Peoples the world over who, until today, are experiencing discrimination from dominant cultures within their territories.

Declaration

I Otsile Ntsoane declare to the indigenous, local and international communities that this study is not a replication of any other study done anywhere else in the world. It is the authors initiative with the !Xun and Khwe communities in Schmidtsdrift-Plaatfontein (South Africa). All the information used from other sources is duly acknowledged.

Signed 

ABSTRACT

The study made An Investigation Into The Attitudes Of The !Xun And Khwe Communities In Northern Cape, South Africa, Towards Protection Of Indigenous Knowledge Systems And Their Implications For Policy And Research. Taking into consideration the complexity of investigating the attitudes of these indigenous communities, the research followed a participatory and triangulation approach. In order to explore the personal experiences of the respondent community members, the researcher undertook to document these experiences in the form of narratives. The use of narrative in this study was one way of moving away from western empiricism and epistemology. They also help to describe sequences of experiences undergone by a certain group of people in a study area.

The major findings of the research were:

- As a result of isolation from their places of origin and the problem of unemployment, the !Xun and Khwe communities, especially the young generations, have become dependent on social welfare grants. However, the majority of the elder generations continued to utilize indigenous knowledge and practices to augment the low income.
- As a result of historical circumstances including removals, the !Xun and Khwe people have experienced various changes in their lives including westernization. This has impacted on their relationship and attitudes towards the utilization of indigenous knowledge and practices for livelihood. Their satisfaction of basic needs has changed from depending mainly on the veldt products to include wage labour and social welfare grants.
- The !Xun and Khwe communities expressed the desire to benefit from the new democratic dispensation in South Africa through provision of housing, water, electricity and other social amenities .
- Education was a necessity that most respondent members valued. It was seen as a vehicle for social mobility in modern conditions of life.

- The respondent communities realized the role of research in influencing policy that affects their lives. As a result, they wanted to be involved in all research processes instead of merely being used as objects or subjects.
- There were various aspects of community life that required protection through policy and legislation. These included local resources, especially access to land, indigenous language; cultural heritage and practices including dances and music.
- Various community structures had been established to address different issues facing the survival of these communities. They called for a better government policy coordination including their participation in policy and legislation formulation and implementation to ensure the survival of their culture including language.

On the basis of these findings the study presents the following recommendations to the study communities, individual researchers, organizations and governments within the Southern African region where these indigenous people are located:

- Researchers should be sensitive to the interest of indigenous communities as participants and co-owners of the whole research process including research results;
- Researchers should acknowledge the use of narratives as a method of collecting and interpreting data among local and indigenous communities. Narratives help to explore the personal experiences of the community members in relation to the problem under investigation;
- Researchers and policy makers involved with indigenous communities should not only consult but should ensure that the respective communities as beneficiaries become part of whole research and policy formulation and implementation process.
- There is need for more research on the impact of westernization, especially the lack of policy and legislation enforcement to protect the lives of indigenous communities against the vagaries of western modernization such as HIV/AIDS, commercialization of indigenous knowledge and resources for profit motives.

TABLE OF CONTENTS **PAGE**

Title page (i)

Acknowledgements (ii)

Dedication (v)

Declaration (vi)

Abstract (vii)

CHAPTER 1

RESEARCH OVERVIEW

1.0 Background 1

1.1 Motivation for the Study 8

1.2 Historiography of the Southern African San Community 10

1.3 Statement of the Problem 15

1.4 Aim of the Study 16

1.5 Objectives of the study 16

1.6 Significance of the Study 17

1.7 Literature Review 17

1.8 Definition of key concepts 21

1.8.1 Problems of Defining Indigenous People 21

1.8.2 Problems of Defining Indigenous Knowledge 28

1.8.3 Biodiversity and the World of Indigenous People 31

1.8.4 Indigenous Cultural Heritage 34

1.8.5 Intellectual Property 44

1.9 Scope of the Study 55

1.10 Hypothesis 57

1.11 Conclusion 58

CHAPTER 2

CATEGORIES OF KNOWLEDGE AND THEORETICAL PERSPECTIVES

2.0 Introduction 60

2.1 Paradigmatic Problems in Research 60

2.2 African Wisdom Systems as Philosophy 65

2.3 Theoretical Perspectives 66

2.3.1 Disentangling Greek as home of Philosophy 66

2.4 Categories of Knowledge 73

2.4.1 Polemics of knowledge: Rationality and tradition 87

2.4.2 Inter-phasing Categories of IKS 91

2.4.3 Category of Social Issues 92

2.4.4 Category of Social Institutions 94

2.4.5 Category of Technology 96

2.4.6 Category of Biodiversity 97

2.4.7 Category of Liberatory Process 98

2.5 A Discussion on Structure of knowledge 101

2.6 Indigenous Research Issues 105

2.7 A Critical View of Research Methodologies 106

2.8 Research Methodology 111

2.8.1 Subjects 114

2.8.2 Methods of Data Collection 115

2.8.3 Data Analysis 117

2.8.4 Research Procedure and Use of Research Assistant and Interviewers 118

2.9 Training and Pilot Testing 119

2.10 Validation Checks 120

2.11 Ethical Consideration 120

2.12 Conclusion 122

CHAPTER 3

THE SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTIC OF THE STUDY COMMUNITIES AND IMPLICATIONS FOR THE STUDY PROBLEM: WESTERN AND INDIGENOUS PERSPECTIVES

3.0 Introduction 124

3.1 Age Distribution 125

3.2 Education 130

3.2.1 Indigenous Language and Cognitive Issues 139

2.3.3 Marital Status 144

3.4 Occupational Status 150

3.5 Income Level 152

3.6 Conclusion 154

CHAPTER 4

COMMUNITY PRODUCTION AND SUSTAINABLE NATURAL RESOURCE UTILIZATION: A CRITICAL ANALYSIS OF KNOWLEDGE SYSTEMS

4.0	Introduction	155
4.1	Sustainable Natural Resources Utilization	156
4.2	Conceptualization of Basic Needs: The Impact of Westernernization among !Xun and Khwe Communities	163
4.3	Comparative Community Attitudes Towards Current Environmental Conditions	167
4.4	Problems Encountered By Local Communities in the use of Indigenous Natural Resources	171
4.5	Community Approach to Conflict Resolution	187
4.6	Conclusion	194

CHAPTER 5

COMMUNITY ATTITUDES TOWARDS THE FUTURE OF INDIGENOUS KNOWLEDGE SYSTEMS: IMPLICATIONS FOR RESEARCH AND IKS GOVERNMENT POLICY

5.1	Introduction	196
5.2	Available community structures	196
5.3	Categories of Community Members involved in Indigenous knowledge related activities.	204
5.4	Community members and indigenous knowledge systems policy	208
5.5	Community Relations to service delivery structures	215
5.6	Attitude of community members towards government resettlement	219

programme

5.7 Community research and future of indigenous knowledge systems 225

5.8 The Case of Centre for Aboriginal Studies 234

5.9 Conclusion 238

CHAPTER 6

6.1 Conclusion 240

6.2 Recommendations 245

6.3 Backdrop 253

6.4 Bibliography 259

6.5 Further reading 269

CHAPTER 7

Annexure one: Research Questionnaire 274

Annexure two: Batswana Indigenous Conflict Resolution Methods: A narrative 291

Annexure three: De-intellectualisation of civil society: Challenges of protecting indigenous wisdom knowledge systems 310

Annexure four: WIMSA Contract 320

Annexure five: Colonial Education and the Production of Rural Misfits 329

Annexure six: Indigenous knowledge systems and their economic potential in South Africa 340

Annexure seven: Where is the grassroots? Lessons from research among the endogenous communities of North-West Province 355

CHAPTER 1

RESEARCH OVERVIEW

1.0 Background

In recent years, indigenous peoples, including their knowledge systems have become the focus of increasing international attention. This is due to a combination of various factors. First, the current global race for knowledge has led to the increasing use of knowledge and technology to add value to business transactions. Globalisation, led by the western countries has set off a knowledge race in order to lay claim to other people's knowledge systems, which could be exploited and marketed for profit. This has created what is now known as the global knowledge economy. The global race for knowledge works against developing nations, especially those of Africa, because they do not have the capacity and enough information to compete with the western countries, especially the powerful multinational corporation (Black et al, 2003).

Micklethwait and Wooldridge (2000) argue that the push and pull of globalisation is ruthless and developing countries quickly find themselves out because there is a range of trade practices, which exclude them. The latter include lack of market information; existence of a dominant western culture which is coming in through advertising, the media, the Internet and western products. In addition, these countries lack the capacity to access patented innovation; internet facilities and electricity, especially in rural areas, financial and other resources to participate in the global race for knowledge, to educate and train their populations and to put in the infrastructure. The dominance of English as

a language of global communication excludes the majority of indigenous communities who are illiterate in the language. This situation has created a new kind of poverty in the developing countries including Africa, i.e information poverty (ibid).

In Africa issues of indigenous knowledge such as knowledge content, pattern of use and exchange processes have become institutionalized as societies throughout the world try to shift away from the dominant western paradigm as sole system of knowledge in the world (Menou, 2002). Although European researchers still concentrate on technologies rather than on systems, structures, and processes for determining development their interest often has intention of validating traditional technologies from a western scientific perspective (Haverkort et al, 2002). It is this technological interest in the natural resources that remain an issue when it comes to relations between development and developing countries. Posey (2000:35) shows that these resources have a potential for biotechnological development of new products by pharmaceutical, agrochemical, and seed industries.

However, Ntsoane (2002:103) argues that through various mechanisms such as patent rights, western multinational corporations have managed to control and exploit the local community knowledge systems and products. Furthermore, if one looks at community research and bio-prospecting in South Africa and Africa at large, one sees a policy vacuum around research activities in indigenous communities. There are no codes of conduct to guide researchers in the correct behaviour or practices in working with indigenous communities including their resources and knowledge systems. One of the measures that are in place to protect the biodiversity and intellectual property of indigenous peoples include the Convention of Biological Diversity (1992) which

advocates the empowering of local communities and recognition for their rights. The major issues are the extent to which these agreements are adhered to and implemented by parties (CBD, 1992).

In her discussion of African indigenous communities, Smith (1999) noted that in most of these communities women are the main users of local resources. They are responsible for the survival of their households in terms of food security, health and education. A recent study on 'Utilization of medicinal plants by the rural women of Kullu, India' revealed significant variation between their (women) knowledge of collection and use of various plants (Uniyal (2003:366-370). The study also indicated variations among females of different castes regarding the traditional knowledge and collection of medicinal plants.

The advancement of western technology and of globalization has acted both positively and negatively on Indigenous Knowledge and biological diversity necessitating protection against further abuse. Watal (2001) reports that Intellectual Related Property-relates are issues mandated for or are already under discussion in several World Trade Organizations bodies, other than TRIPS Council. There are more proposals from developing countries, including the Seattle 1999 case. Developing countries want issues relating to transfer of technology; new provisions related to biodiversity, including the protection of traditional knowledge to be considered. Through the utilization of intellectual property regimes. World Trade Organisation agreements, and World Intellectual Property Organisation developing countries are forced by those developed to give away patent rights, intellectual property, trade rights and delays in protecting indigenous knowledge systems.

With regards to the conservation, protection of IK, cultural biodiversity and rights of indigenous communities, the Scientific, Technical and Research Commission of the Organisation of African Unity (OAU/STRC) (March 1998) endorsed the protection of indigenous knowledge and associated resources. They did this by drafting The African Model Legislation. The Model ensures the conservation, evaluation and sustainable use of biological resources, including agricultural genetic resources. This is meant to maintain and improve these resource diversities as a means of sustaining the life support systems.

Odora-Hoppers (2001) argues that the current protective measures for indigenous knowledge systems in African and Southern Africa in particular are based on the western epistemology. In the Southern African region, for instance, there are no established and implementing measures that support a democratic protective policy. Existing legal institutions for protecting the interest of indigenous people are not built on the indigenous people's notion of common protection.

Seile (1998) cited in Dudfield (2000) explores five areas from which protection of indigenous people's interest can be accorded. The first approach is called Intellectual Property Rights for communities: This approach could be used to provide communities with IPRs for their informal innovations and biodiversity-related skills that cannot be protected by conventional IPR systems. Many Southern NGOs and indigenous people's organisations have the criticism that in vesting those rights in communities, the commodification and monopolization of life forms will be even

more strongly established worldwide. This option does not offer protection for indigenous peoples and their knowledge.

The second approach, namely, community intellectual rights and collective rights: This strategy could be pursued to protect the rights of indigenous communities from being usurped by foreign interest. All biodiversity-related rights of local communities are to be protected by adequate legislation, which the state has to abide by. The primary object is to prevent piracy. It is not intended to be in full compliance with the TRIPS stipulations.

The third approach is the Modified plant variety protection which provides royalty for farmers on protected seeds. It has to do with plant variety protection system that falls under the Convention of the International Union for the Protection of New Varieties of Plants (UPOV).

The fourth approach is called the comprehensive biodiversity legislation, which deals with the question of access to genetic resources, biosafety, IPR's and communal rights. It seeks coherent policy measures in the national context by including the CBD (1992) such as prior informed consent, protection of scientific and traditional biodiversity-related knowledge through intellectual property rights.

The last approach is called sectoral community rights regime. Herewith a regulation system is designed especially to deal with the interest of local communities concerning specific categories of biodiversity. An example of this is when only medicinal plants and related indigenous knowledge systems are taken care of in the legislation.

Watal (2001) indicates that not yet considered in many indigenous communities is the utilisation of principles of geographical indications. Geographic indicators are guide laws to protect certain traditional know-how and help maintain the economic value of locally produced goods including herbal formulation. The protection under the geographical indicators permits any association of persons or producers or any organisation of authority established by law representing the interest of the producers of goods to register a geographical indication (Tripathi, 2003). Within this appellation of 'origin' is the point of concern. Within this, argues the researcher, is the protection of products whose goods are renowned for their distinctive qualities and geographic origins against those who would undermine or exploit their good reputation by making similar but false claims. An example here is an American who patented South Africa's Rooibos Tea as a product of America.

The other protection measure is the Trade Secrets, whereby the knowledge or know-how of an individual or whole community might be protected under trade secret. This happens when there is a commercial value in the knowledge and provides a competitive advantage. Conceivably there is a considerable amount of indigenous people's knowledge that could be protected as trade secrets argue Dutfield (2000:86). It is believed that this measure can restrict access and agreement with the indigenous community. For instance 'if a healer or other individual has exclusive access to information because of his/her status in the group, that individual or the indigenous group together probably has a trade secret' (ibid).

An observation by organisations that stand for indigenous peoples' rights in South America and Canada, for example, is that as long as biological resources are a public good (common heritage), society will not take their natural resources serious. They call for creation of new legal means or contracts to internalize the qualities of biological diversity. The problem that is currently experienced by indigenous communities is whether to go the route of intellectual property or that of public subsidy (also known as farmers' rights) or any of the four principle methods identified for producing and allocating knowledge as public good: government institutions, intellectual property rights, public subsidies, and collective invention. Southern Africa's indigenous peoples such as !Xun and Khwe and their counterparts in Botswana and Namibia, are still not covered by protective measures against exploitation of the indigenous knowledge.

Odora-Hoppers (2001) argues that the current protective measures for indigenous knowledge systems in Africa and Southern Africa in particular are based on the western epistemology. In the Southern African region, for instance, establishing and implementing a democratic protective measure is still lagging behind. Existing legal institutions for protecting the interest of indigenous people are not built on the indigenous people's notion of common protection.

However, there is a renewed interest in Africa and in African Studies including Indigenous Knolwdge Systems globally. Moreover, the globalisation process makes it imperative that Africa cannot be ignored. It is increasingly seen as part of the global village. The global context for peace sees that the world cannot have some countries at the bottom pit of poverty whereas others live in wealthy. This creates an unstable

global situation. So there is an interest in uplifting Africa from poverty in the interest of the world as a whole.

The whole global communication system has enabled people, within and outside Africa, to see the value of things in Africa and become interested in them. South Africans and Africa at large are undergoing a paradigm shift in that they now increasingly value their own local and indigenous knowledge systems and resources, more than before. Indigenous Knowledge Systems was never discussed in the open as it is done at present. The problem that is currently experienced by indigenous communities is the absence of protection measures and regulations that protect them against bio-piracy and exploitation. Many developing countries do not have legal means and policy that is adequate for the protection,promotion and development of indigenous knowledge systems and its related technologies. Southern Africa's indigenous peoples including the !Xun and Khwe are still not covered by protective measures against exploitation of their indigenous knowledge.

1.1 Motivation for the study

Governments the world over have begun to include and consider indigenous knowledge systems in their policies. Many developmental projects prefer integrated planning and implementation and thus the utilization of appropriate knowledge and technology has become a niche for development agencies, local and national governments. Indigenous Knowledge Systems have become an alternative 'thought and empirical patterns' for social development in the world today. Research by United Nations (1994) shows that many conferences drafted declaration upon declaration in trying to build a better sustainable development without Indigenous Knowledge but

failed in the end to achieve sustainable outcomes. It has become imminent that Indigenous Knowledge will contribute substantially to the livelihoods of many urban and rural communities. Therefore a study in the areas of protection, development and utilization of Indigenous Knowledge by indigenous communities is important. This includes Southern Africa such as the !Xun and Khwe.

The !Xun and Khwe communities are victims of internal-colonization. They are alienated from their historical indigenous environment; their knowledge is now vulnerable to disappearance due to modernization and westernization of their socio-cultural and economic life-styles. What is at threat is their knowledge system and its relevance to utilization of local natural resources. Therefore, without promotion and protection policy of their knowledge systems and resources the future generations will be robbed of their wisdom, knowledge and biodiversity.

The drug and foodstuff manufacturers and producers have joined in utilizing IK in prospecting for future products. Many cities in the Western countries have even established gene banks as a way of protecting related natural seeds and germ plasma of other nationalities from disappearing. These gene banks pose a threat to the development of biodiversities in the regions where biodiversity is used in the provision of livelihoods for indigenous communities, such as the Bushmen/San people of Southern Africa. These include the !Xun and Khwe in Schmidtsdrifdt-Platfontein. The study of indigenous knowledge systems among these communities will contribute to the New Partnership for Africa's Development (NEPAD) intention to protect and nurture indigenous knowledge. The latter includes traditional-based literacy, artistic and scientific works....and creation resulting from intellectual

activity...this includes associated knowledge. Therefore a study in Indigenous Knowledge 'thus posits tremendous challenges for the reconstruction and development of strategies to alleviate poverty in Africa and South Africa in particular'(NEPAD ,2001: 35).

The study is in line with the past and current activities related to indigenous knowledge systems and related technologies which the researcher is engaged further motivated by the work that is already being done by the researcher. The works include research on " The Implications of Intellectual Property on Indigenous Knowledge Systems: A Comparative Study of Selected Rural Communities in Botswana and South Africa" (2001); Indigenous Technologies and its Socio-Economic Contribution to the Livelihoods of rural Communities : A comparative Study among the Bakgatla and Ndebele in the North-West Province of South Africa' (1999), Implications of IKS and its Economic Potential in South Africa (2002 and Where are the Grassroots? Lessons from Research among the Endogenous Communities of The North-West Province (2000).

1.2 Historiography of the Southern African San Community

Various linguistic communities make up the Bushmen, as they are traditionally but not always happily known by Westerners. Those who live in South Africa and who suffered under apartheid prefer to be known as "San", a word that comes from Nama, another Southern African language. Unfortunately it means something like 'vagabond' or 'rascal' (Richard Lee, 1979) though this meaning is either not widely known or the people who use it do not mind. They choose the word San because they

feel that the well-known word "Bushman" carriers strong negative connotations, a point that is true amongst some, though by no means all, Southern Africa communities (Keeney, 2003).

There are those Bushmen who feel that the name can be rehabilitated, for them, it has connotations of 'first people' and 'freedom fighters'. For the purpose of this study the word 'San' will be used without any pejorative connotation or negativity. According to Keeney (2003) and the researcher's own encounter with the San elders; both never met a Bushman elder who wanted to be called anything other than a 'Bushman'. Many do not subscribe to the word San since they do not know what it means. Although many anthropologists have admitted that San was a name they preferred and not Bushman. Many are proud to be known as bushman, the people of the bush. The question that Keeney ask is: Is it the bushman or the anthropologist who is more invested in the political correctness of using 'correct' names and metaphors when describing their culture? This tells about the dilemma that any scholar who studies the Bushman is caught up in. For further reading over the use of the terms Boesmen, Khoi-Khoi, San or Hottentots check for Jenkins and Tobias (1977), and Guenther (1977), Elphick (1974,1975, 1977), and Boesken (1972, 1974, 1975).

Cooke cited in Hitchcock and Smith (1991) gives a pre-colonial history of the San. Historical records show that until about A.D 200, the current Botswana was occupied exclusively by the San people. Their origin in Southern Africa is arguably between 15 000 and 40 000 years ago. They are characterized by their light build, small stature, and mobile foraging existence.

Colonial regimes that met the San assumed them to be lesser human, less developed and primitive. These descendants of the first people of Southern Africa were at one epoch in history hunted and killed for pleasure mainly by the European Settlers. Through a process of acculturation and integration into the broader society, the San lost part of their cultural identity. Most of the San people live in Namibia, Botswana and South Africa.

This section of the study is concerned with the !Xun and Khwe who originally came from Angola. Their historical background includes their militarization and later integration into the modern society with basic needs supplied by government.

Both !Xun and Khwe communities were involved in the different wars that took place in the 1960s and 1970s in Angola and Namibia. In 1962 when the Angolan war broke-out the San fought on the side of the Portuguese. The colonial war lasted until 1975 when Angola won independence under the Popular Movement for the Liberation of Angola (MPLA). The !Xun and Khwe then moved to Namibia (then South West Africa) where they fought on the side of South Africa against South West African Peoples Organisation (SWAPO). The two ethnic groups helped the South African Defence Force as trackers, handymen and in combat. Circumstances never favoured the San in that they had to be the enemy again in 1990 when SWAPO won and Namibia became independent.

For all these years since 1962 the two San communities never had a land of their own. Their involvement in the different wars, had great impact on their cultural and social lives. Their knowledge about the environment, cosmology, social factors and

production of craft and related technological tools, had been affected. Indigenous knowledge dealing with forage culture and hunter gathering has also been affected.

About 2 800 !Xun and about 1 200 Khwe opted to be resettled at Schmidtsdrift in South Africa. In 1991 there were 179 Khwe and 420 !Xun households at the settlement. By comparison the resettlement resulted in South Africa having a larger population of the two communities than Angola. At Schmidtsdrift the San were settled in line up tents according to army units and not according to relatedness. The settlement was not according to kinsmen. Ablution and water supply facilities are within reach.

Upon arrival at Schmidtsdrift the two communities requested to be placed separate from each other. A kilometre distance separated them. This separation is still eminent at the Platfontein new houses settlements as was the case in Namibia. Language and cultural differences are cited as the reason for this separation.

According to key informants from the CPA the two communities are clustered as a village and are administered by an elected council. The inability of women to communicate in Afrikaans and English is cited in Voster (1993) as reason for the exclusion of women from the council. However, the leaders at CPA say that they encourage women to be part of the different committees where they are expected to contribute. A development and involvement of women is supported, hence the first Khwe woman is employed at the XK FM radio station and as administrators at the centre.

About ten years ago there were about 550 !Xun and Khwe males employed in the South African Defence Force in various capacities, such as casual labourers on farms, interpreters, helpers at the local clinic, and the making of curios, etc. The economy of the community changed from depending solely on natural resources to money economy over the years. This placed serious challenges for survival and livelihoods among these communities. Hunting and gathering is no longer the supplier of basic needs. Many people are without a fixed income.

Although some of them depend on their indigenous knowledge and surrounding natural resources, the Schmidtsdrift natural environment differs markedly from that of previous settlements in Angola and Namibia. There are lamentations and worries about the future of their knowledge and associated skills which for decades were the basis of their livelihoods.

In 1994 a study was commissioned in the form of a survey to find out how many members of the community were in favour of returning to Namibia and how many were opposed to this (Mouton and Miller, 1997). The recommendation of the survey are contained in Sharp, J and Boonzair, E (1994) tittled: "Preference of the people at Schmidtsdrift Military Base regarding scenarios for the future". This was handed over to the !Xun and Khwe Trust and was used as guide in years to come.

Early in 1996 the !Xun and Khwe Trust entered into negotiations with the government on the purchase of freehold farms near Kimberly, so that those Schmidtsdrift people who wished to stay in the area could live there and raise crops and stock. The result has been that the South African government has as recently as in 2003/4 allocated land for the resettlement of the San communities of the !Xun and

Khwe in an effort to allow them proper housing, and other amenities suitable for domicile. The San's relocation will be one of the many series in the past twenty years. They were relocated to Angola from Namibia, then back to Namibia. After independence the Namibian authorities relocated them to Schmidtsdrift in Northern Cape now they are relocated to Platfontein. This might be their final destination after generations of dispossession.

1.3 Statement of the Problem

The !Xun and the Khwe people in South Africa have in the past ten years experienced outsiders coming into their communities taking photographs, making film and video, and television interviews, taking away their art and crafts without remuneration or their prior consent. The !Xun and Khwe, just like other indigenous peoples in the world have lost millions of rands in royalties that were never paid to them because there are no adequate forms of protection. Commodification of indigenous knowledge and associated resources by Multi-National Corporations and local companies have made the indigenous communities a huge supermarket in which local knowledge systems, and resources are being packaged for commercial purposes under liberalization of the economy (Bhaumik, 2003).

The above situation indicates that the development of policy strategies for the protection of indigenous knowledge and associated resources posit tremendous challenges for African countries and indigenous communities in particular.

1.4 Aim of the Study

The aim of this study is to make an investigation into the attitudes of the !Xun and Khwe communities in Schmidtsdrift-Platfontein (South Africa) towards protection of indigenous knowledge systems and what implications these attitudes have for research and policy making by Government.

1.5 Specific Objectives of the Study

The study examines the following specific aspects:

- The socio-economic and demographic characteristics of the !Xun and Khwe in the study area in terms of age distribution, marital status, educational levels, occupation, and in relation to the research problem?
- The historical background of the !Xun and Khwe communities in Schmidtsdrift-Platfontein with regards to their attitudes towards the role of indigenous knowledge systems and associated local resources for sustainable livelihoods?
- Indigenous knowledge systems and resources that exist in the study communities for sustainable livelihoods?
- The comparative attitudes of the study communities towards research and government policy on protection and promotion and the utilization of indigenous knowledge systems and associated local resources?

1.6 Significance of the Study

The study will contribute new knowledge to the current debates on the role of Indigenous Knowledge and Indigenous Knowledge Systems in policy formulation, and building on the indigenous for development, provision of measures of protecting biodiversity, indigenous cultural heritage and the support for an indigenous research based methodological approach. Member states of Southern African Development Community (SADC) especially Botswana and South Africa are working towards cooperate and liberalized trade; this will obviously impact on the trade in natural resources and knowledge exchange. The study will facilitate the implementation of different international treaties including World Trade Organisation, Convention on Biological Diversity Trade-Related Intellectual Property's, International Labour Organisation No.169, etc. The study will, through its recommendations contribute to the understanding of the dynamics involved and sensitivity that should be applied when dealing with research and policy development concerning indigenous communities. The study will hopefully stimulate further research in these areas. The study is therefore justified and necessary in providing a philosophical base for wisdom knowledge systems as guide to the African renaissance projects.

1.7 Literature Review

Literature review is very important since it exposes the researcher to those fundamental articulations by previous researchers, scholars and writers who encountered the colonial discourse. It will be from these sources of knowledge that

the researcher will bring a ray of issues that will assist the readers in understanding what indigenous knowledge entails; what it intends to achieve; what struggles the indigenous peoples had to go through to legitimize their epistemology and what present and future challenges are there for western research methodology.

Theory and academic research are important sites of struggle for Indigenous Peoples because Indigenous Peoples were turned into objects of research. Academic research and its theoretical foundation are based on Western orientations. Indigenous researchers should be open to use any theory that emancipates them and serves relevance to their struggle for indigenisation. Theory is important in organizing struggles and transformative action as pointed out by Graham Smith (2000:24). Theory will enable indigenous peoples to move forward in the work that they are faced with in their communities, in developing sound critiques and effective interventions.

Critical approaches to both methodology and theory should be seen as a corrective measure in 'integrating knowledge' and moving 'towards a philosophy of articulation' (Odora-Hoppers, 2002). New research protocols and ethics should be arrived at in favour of Indigenous Knowledge Systems and the Indigenous people themselves.

Choosing a theory is not easy in a new epistemology that intends to challenge the long standing colonial history, social science and its theoretical base. It is always a challenge in setting the goal for theory that opposes modernization theories. The aim of western theories is in most cases to deconstruct the so-called traditional institutions and structures and replace them with Western ones (Martinussen 1997: 348) . It is

demanded of good theory that it demarcates its sphere of applicability or defines the circumstances under which it is assumed to be valid (ibid:436). It will be good pedagoguery and research that shifts from implicit claims of universal validity for all developing countries towards more differentiated theories which take into account the dissimilar conditions and structure of developing countries.

Most of what is available within the concepts that relates directly to the term 'indigenous' still needs a critical non-anthropological, non-Western epistemological inter-phase and assessment. Countering this is Crossman and Devisch (2002) who say that while the term indigenous might well comprise the site-specific character of knowledge indicated (here), it does not comprise that all important nuance borne by endogenous: development determined by innate resources. The two scholars make a plea for a shift to the terminology of endogenous knowledge and attempt to fill out that concept from an anthropological approach. The influence that colonial scholarship and education had on the mind-set of ethnophilosophers is embedded in the works of Wiredu, who argues that there is a need for critical recovery of indigenous knowledge.

Furthermore on theory and methodology Smith (1999), suggests that methodology functions in many ways which include:

- Allowing a researcher to characterize and classify information into categories;
- Condensing complex images of other societies through a system of representation;
- Providing a standard model of comparison, and
- Providing a criteria of evaluation against which other societies can be ranked.

These are the procedures by which indigenous peoples and their societies were coded into by the Western systems of knowledge. Smith further expresses a strong notion about research. From an indigenous perspective, Western research is more than just research that is located in a positivist tradition. Research bears a cultural orientation, a set of values, different competing theories of knowledge, and structures of power.

It is necessary to observe the four points cited above since Western theories about research are underpinned by a cultural system of classification and representation, of views about human nature, human morality and virtue, and by gender and race, amongst others. Senghor (1965) writes: 'To know a human fact, psychological or social, no longer means to investigate it with the aid of statistics and graphs, but to live it. The fact that one cannot separate the knower from the known entails that one cannot make a distinction between two kinds of reality, one purely mental, the other merely material.' For Senghor it is the discovery of this dialectical method for acquiring knowledge of ourselves and the world that has shown up the true inadequacies of European scientific-technological culture.

Senghor is cited at length below because he touches on the root of the problem with research methodology:

> In contrast to the classic European, the Negro African does not draw a line between himself and the object; he does not hold it at a distance, nor does he merely look at it and analyse it....He touches it, feels it, smells it... Subjectively, at the tips of his sensory organs, his insect antennas, he discovers the Other. Immediately, he is moved, going centrifugally from subject to object on the waves of the Other...Thus the Negro African

> **sympathizes; feels with, abandons his personality to become identified with the Other, dies to be reborn in the Other. He does not assimilate; he is assimilated. He lives a common life with the Other; he lives in symbiosis... Subject and object are dialectically face to face in the very act of knowledge (1965:73-74)**

Crossman & Devinisch, cited in Odora-Hoppers (2002:117) observe that it has often been demonstrated that compulsory methodology employed by science and urging standardization, uniformity or conformity may not, in the long run, provide the best possibility for the development of new scientific models, methods and discoveries. Hence Ocholla (2002) argues that the role of research is to develop new theoretical and practical paradigms for solving both holistic professional problems and, in particular problems affecting the continent, *Africa (my emphasis)*. What follows next is an attempt at providing a definition for both indigenous and indigenous peoples.

1.8 Definition of key concepts

1.8.1 Problems of Defining Indigenous People

The primary intention of this section is to draw attention to the variety of terminologies, definitions and cognitive concepts that try to provide a suitable meaning to the term 'indigenous people and Indigenous knowledge'. The definition of what is 'indigenous' in international law is quite recent and still controversial. In the Anglo-Saxon literature the term used more frequently is 'Indigenous', that in English carries strong connotations of authenticity, belonging and time honoured prescriptive rights. There are contradictions and ambiguities in trying to define what is indigenous or worst still who indigenous people are.

It is impossible to use 'indigenous' in a morally neutral or apolitical way. Within the Afro-centric notion indigenous cultural systems are made from all walks of life such that these ways of being define themselves in the context of the socio-economic political settings. The people provide a definition for themselves; they assert roles and responsibilities in society according to experiential knowledge and skills that contribute to the welfare of the community.

The concept 'indigenous' warrants a decolonised definition that is outside the Eurocentric and anthropological confinement. The word 'indigenous' originates from the Latin term' *indigenae*' which was used to distinguish between persons who were born in a particular place and those who arrived from elsewhere *(advanae).* The word indigenous is not without corruption from external influence. What people hold at high esteem and draw as part of their identity can be regarded as indigenous. There are influences in the definition of what is indigenous from both the French and British colonial legacy.

Battiste (2000) requests that Eurocentric thought must allow indigenous knowledge to remain outside itself, outside its representation, and outside its disciple. Meaning that people should be allowed a self-determination and self-realization which comes through naming and defining whom they are and how they relate to others. The Euro-centric strategy of universal definition and absolute knowledge has made its scholarship unable to know and respect indigenous knowledge and heritage. This has occurred in the manner in which indigenous people received derogative and at times offensive names.

From the Euro-centric vantage point there is a problem in defining 'indigenous knowledge' (IK) and establishing categories and workable focus areas for studying them. This happens because of the inter-linkages and connections that are imbedded within the Indigenous knowledge systems. In short the knowledge is not categorised and reduced to subjects that have no cross-referencing. Hence what is meant by 'indigenous knowledge' is by no means clear and simple as seen by United Nations Sub-committees.

All attempts, including that of UN Sub-Commission for the Prevention of Discrimination and Protection of Minorities are embedded with objective and subjective criteria within themselves in their attempt to define indigenous. In 1957 the International Labour Organization (ILO) adopted The Protection and Integration of Indigenous and Other Tribal and Semi-tribal Populations in Independent Countries Convention, No. 107. The convention codified for the first time the rights of indigenous people. Indigenous people were very critical of the previous Convention 107. In 1989 the ILO agreed and accepted that the convention was inadequate. In 1989 the ILO adopted the Convention Concerning Indigenous and Tribal in Independent Countries, No, 169 which applied to:

(a) Tribal peoples in independent countries whose social, cultural and economic conditions distinguished 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;

(b) People in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment or present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.

ILO No. 169 resolved that by Indigenous people it refers to people in a particular country who on account of their descent inhabited the country, or geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present state boundaries and who irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions. Other terms that were given to the indigenous people by colonial regimes were also challenged, as below.

Ellen et al (2000:3) provide a further debate that 'native' and 'aboriginal' have similar connotations; 'tribal' is too restrictive and confuses a political condition with a distinct kind of knowledge; 'folk' and 'traditional' are less morally loaded, though 'folk' still has rather quaint association in some quarters. 'Local' has the merit of sounding more neutral, but fails adequately to indicate key qualitative differences in the character of knowledge usually alluded to, while being in danger of becoming coyly euphemistic. Although, Ellen et al (2000), provide a definition similar to that of ILO 169 in that it refutes the use of offensive words like 'tribe', 'native' etc. Ellen et al (2000) do however, cloak their interpretation in neologism and euphemisms such as "folk" and "tradition" are morally loaded. This is demonstrated by their lack of

understanding that indigenous peoples' codes of life were governed by ethics and not Judeo-Christian-Islamic moral values. The indigenous people are quite aware that their ethics are nature bound and friendly.

Further more on the definition is Lorenzo Nesti (1990), who uses the report of José Martinez-Cobo (1983), and provides a broad approach to the definition, making a combination of characteristics that can be observed and generalized. First, is the identification of indigenous peoples as inhabitants, or the descendent of the original inhabitant of a particular territory, then conquered by a group who arrived in a second instance; groups from which descendants, the conquered people continue to have a different culture and toward which continue to be in a subordinate position. The case of the !Xun and Khwe in the study areas are more relevant. This first distinctive aspect brings two particular problems: first is that in this way the indigenous tends to be identified as the dominant Africans; oppressed by the European conqueror and colonization in the past five hundred years. These Africans were made to pretend that they are not indigenous people in their own countries. However their mode of economic activity, access to political power and generally the human rights culture proved otherwise.

Indigenous people usually are characterized by a subsistence economy with no production aimed at the market or profit; social cohesion is maintained by equally sharing wealth within the group. This definition does not necessary reflect the current material and economic condition under which they live. Because subsistence life was key in the past amongst many Africans, current social and economic conditions do not provide for the continuity of old economic systems to the general population. Indeed,

although minority and indigenous peoples share many features as a distinct language, religion or culture, and many times also specific territory, indigenous people prefer to see themselves as different also for legal/political reasons. The legal or political difference was recently demonstrated by Traditional Leaders during the local government /municipality election in South Africa. Ownership and control of land and territories (tribal land) become the main issues over and above that of custodianship for cultural heritage and natural resource found within the tribal land. Indigenous people have a strong link with their environment where they live. Hence they make a sustainable use of the resources they dispose of. They also have a strong link with the land.

The definitions of indigenous peoples as provided by ILO (No. 169) are culturally bound and are also connected to the concept of self-definition. Such a definition calls for Indigenous groups to emphasize their right to define themselves, both in terms of individual self-identification and with respect to the community right to define its members. This means that a group asserting itself as indigenous people is so accepted by the international community and the other indigenous peoples as defined in ILO (no. 169). The second would imply that the group to which the person claims to be indigenous to as such should accept the definition of oneself as an indigenous person and his/her recognition to the group. Issues such as common heritage, language and common ancestry might be of great help in order to be accommodated as a group member.

Commenting on indigenous people, Smith (2001:59-60) posits that indigenous people were classified along with the flora and fauna; hierarchical typologies of human and

systems of representation were fuelled by new discoveries; and cultural maps were charted and territories claimed and contested by the European powers. Hence some indigenous people were ranked above others in terms of such things as the belief that they were 'nearly human', 'almost human' or sub-human'. The case of Sarah Baartman, a Khoi woman is captured by Mbeki (BBC new,2002:09) as '(It) is the story of the loss of our ancient freedom... It is the story of our reduction to the state of objects who could be owned, used and discarded by others'. The colonials gave such derogative and demeaning terms to people.

Brush and Stabinsky (1996) defines indigenous people as a term that is best used in regions with a colonial history that has left a predominant national culture and autochthonous cultures that coexist and compete for limited resources, especially land. The problem that is there with Brush and Stabinsky is that their understanding of indigenous people is locked in the prisons of assimilation and the indigenous people live at the mercy of the colonizer as a giver or philanthropist who is charitable to the minority group.

For this thesis two definitions will be used. The first definition is no. 169 of ILO:

> According to ILO, Convention 169, Indigenous people refers to people in independent countries who are regarded as indigenous on account of their descent from populations which inhabited the country, or geographical regions to which the country belongs, at the time of conquest or colonization or the establishment of present state boundaries and who irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.

The second definition linked to ILO is that of José Martines-Cobo reporter for UN Sub-Commission for the Prevention of Discrimination and Protection of Minorities. However, attention is drawn to the problems that Martinez Cobo's study raised. A definition that has paternalistic identities reveals wrongly the meaning of indigenous people because all people have a pre-invasion, pre-colonial non-dominant past. The Euro-centric definition of indigenous people reads thus: '[a] discriminated or marginalized [people] on the basis of cultural difference through the discriminate machinery of colonialism, neo-colonialism, imperialism and today, globalization (Battiste, 2000).

1.8.2 Problems of Defining Indigenous Knowledge

The first challenge of defining indigenous people is now followed by that of indigenous knowledge. The advent of colonialism and apartheid has erased prominent features of cultural identity among African people. The rich knowledge that people developed over the years was erased and replaced by foreign ways of understanding the environment and the cosmology. Shiva (1997) makes an observation that colonialism and colonialists began by declaring non-Western lands as 'empty' devoid of people or ideas, and the diverse science and innovation that steered and maintained those societies as 'non-science'. In this strategy of 'conquest by naturalization', the cultural and intellectual contributions of non-western knowledge systems were systematically erased. Odora-Hoppers (2001) makes a contribution that 'they (non-Western knowledge) were not taught in schools, they were omitted from history text books, they were not allowed into public domains, which were then reserved exclusively for knowledge(s), heritage, cultures, institutions, norms and

idiosyncracies of Western society.' Hence we saw revolution after revolution launched against the colonizer in an effort to restore the stolen legacy of indigenous knowledge.

A study of indigenous knowledge is an act of revolution and in itself a democratization of epistemologies; knowledge remains a central precondition for human liberation because the contemporary knowledge systems exclude the humane by their very structures. Shiva (1993:61-2) sees such a process of democratization involving a redefinition of knowledge such that the local and diverse become legitimate as knowledge, and they are viewed as indispensable knowledge because concreteness is the reality, and globalisation and universalisation are mere abstractions which have violated the concrete and the real. Globalisation also transformed knowledge into commodity to which the most powerful in society usually lay unjustified claim. Hoppers (2002) sees a process of dialogue through research becoming central in the emancipation, development, integration and protection of IKS's in a rapidly changing global context.

Rajasekaran (1993) on the other hand, defines indigenous knowledge as a systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments, and intimate understanding of the environment in a given culture. According to Haverkort (1991), indigenous knowledge is the actual knowledge of a given population that reflects the experiences based on traditional and includes more recent experiences with modern technologies. Hence indigenous knowledge is the social capital of the poor and their primary weapon in the struggle to

survive, to produce food and to look after their own health and that of their animals (Guus von Liebenstein 2000).

Kaya (2004) and Ntsoane (2002) argue for a rounded and holistic understanding of IKS from just being perceived as only relevant to local community. Both posit that IKS has a great potential to contribute to the outside world in as much as it does so for local communities. A case in point is the utilization of African traditional medicines in the development of drugs in many Western countries.

It is important for us to understand those indigenous knowledge systems in this context. It will largely deal with African indigenous knowledge systems because all nations on this planet have indigenous knowledge systems. The most important thing about African indigenous knowledge systems is that they are founded on indigenous wisdom systems that are experience and knowledge together with the power of applying them critically or practically. That is to say they are nature conscious, unlike western indigenous systems that are based on 'man's conquest of nature'. Indigenous wisdom systems are the pre-requisite to sane indigenous knowledge systems. Wisdom systems are balanced; they are the fulcrums of sane science. They transform and transpose the false perception of self into an informed indigenous knowledge system of self in the collective sense. This says that the individualism dies and the 'US' is transferred into the eternal tomorrow that walks in harmony with the true meaning of friends of the universe, lovers of Mother Earth (personal conversation with Lefifi Tladi, 2001). As a knowledge system, Indigenous Knowledge systems consists of people, the domains of knowledge, the techniques, and technologies that drive the knowledge

The opposite of these negative attributes towards people no more interested in IK is countered by critics of western science and its developments. Green-revolution technology (e.g, the utilization of chemical as fertilizers) is associated with ecological deterioration, economic decline, and poorer diets and nutritional losses resulting from eradication of traditional foods or from their substitution by non-traditional foods. For the past thirty years unprecedented pressure on biodiversity has been experienced. Top-down planning fails to promote effective natural-resources management at local level. In short, development planning has often failed to achieve the desired result which is sustainable development (Greiner,1998).

Shiva (2000) points out two paradigms of biodiversity conservation. The first involves local communities, which sustain themselves by utilizing and conserving biodiversity. The second involves commercial interests, which make their profit harvesting this planet's biodiversity and feeding that harvest into industrial systems of production. This they refer to as 'raw material' for export and patent. Worthy of note is that the survival of indigenous people is tightly connected to whether biodiversity is viewed as kin to the human species or as industrial raw material, and to whether the integrity of the community will be recognized and not merely the rights of the individual.

1.8.3 Biodiversity and the World of Indigenous People

Biological diversity is one area that is recognized as important in sustainable development of communities. The San people for over a million years used their environment to sustain themselves. They depended on biodiversity for medicine and

food. Therefore biodiversity remains the fulcrum for any social development within indigenous people's territories.

Biodiversity is the variety of world's organisms, including their genetic diversity and the assemblages they form (Reid and Miller, 1989:3, and Anderson, Schucking et al, 1995:60). Put simply biodiversity means the diversity of life- the rich diversity of life forms on our beautiful planet. Biodiversity is the very fabric of life- it provides the conditions for life's emergence and maintenance, and the many different ways in which that life is expressed. Biodiversity is in fact the embodiment of centuries of cultural evolution (Shiva, 2000:8).

Over and above this definition there is an internationally accepted definition of what should be considered as biodiversity by the world community. At the Earth Summit at Rio de Janeiro in 1992, a definition was arrived at:

> 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 a part; this includes diversity within species, between species and ecosystems.'

The definition above links squarely with the life of the San people in that, for instance, the basis of biological diversity in indigenous Africa *vis a vis* botany lies in the ancient indigenous wisdom systems of African peoples personal relationship to nature, commonly known as 'rooting the you in you to the soil'. What gave birth to the African saying 'son or daughter of the soil'? A way of seeing man and nature as one not in a reductionist manner as experienced in the West.

Shiva (1995 and 2000) warns against the one dimensional reductionist thinking that destroys diversity and sees trees as mere pulpwood, crops as commodities and cows as milk or meat machines. In the African wisdom-based knowledge systems' diversity paradigm, trees conserve soil and water, they create microclimate; they are the home of diverse species. Within the one-dimensional way of thinking, the monoculture of the mind, if human needs are to be met then nature must be destroyed. If food is to be produced, biodiversity must be destroyed. (Shiva: 104). This approach to biodiversity adopts a policy of destruction of diversity in production processes, because biodiversity cannot be conserved unless production itself is based on a policy of preserving diversity. This is the central concern that calls for the conservation and protection of biodiversity.

Grenier (1998) discloses that, not withstanding the fact that some IK is lost naturally as techniques and tools are modified or fall out of use, the recent and current rate of loss is accelerating because of rapid population growth, growth on international markets, educational system, environmental degradation, and development process. This is proven by recent studies carried out by environmentalists who show that because of the readily availability of many commercial foods, some biodiversity seems to become less relevant; chemical inputs seem to reduce the need to tailor varieties to difficult growing conditions. Thereby more and more knowledge is being lost as a result of disruption of traditional channels of communication, agriculture, and generally life under the guidance of African wisdom based knowledge systems.

1.8.4 Indigenous Cultural Heritage

Cultural heritage is a western construct that focuses generally on material culture and subjective judgments about what is historically, artistically and 'archaeologically' significant (Smallacombe, cited in Ivision *et al*, 2000). Because cultural heritage is a collective right and not adequately protected by common law doctrines in South Africa and elsewhere, any form of protection must come from specifically designed legislation that has to be sensitively interpreted by the courts. Therefore cultural heritage, as a western construct, enshrines European archaeological and scientific values and, as such, protects indigenous cultural heritage on that basis only(ibid).

With regards to protection of heritage the Eurocentric lawyers pretend that they can protect Indigenous heritage using laws developed to protect other creative rights under the rubric of intellectual, spiritual, and cultural property rights, but this is a twisted version of equality (Battiste and Henderson, 2000:168). Consequently, while the western legal system may find ways to deal with disputes over buildings, objects and environmental heritage, and experts may be able to verify authentic provenance, there is an assumption that disputes involving indigenous 'heritage' (cultural values) can also be solved by the same processes. This is not the case with issues surrounding land claims and right to access natural resources within appropriated lands, a challenge for western constructs within heritage.

Western concepts of heritage are based on the construction of hierarchies and classifications that are imposed, through the colonising process, on the knowledge and

cultural systems of indigenous peoples, thus rendering them subordinate to western systems (Ivision, Patton and Sanders, 2000).

According to UNESCO World Heritage Convention, cultural heritage can be separated into the intangible or nonmaterial aspects such as languages, customs, and religions; and tangibles that include sites, building and artifacts. The heritage of indigenous people is comprised of all objects, sites, knowledge and the nature or use of which has been transmitted from generation to generation, and which is regarded as pertaining to a particular people or its territory, Erica-Irene Daes (1995). Furthermore, Daes (1993) states that 'indigenous people do not view their heritage in terms of property at all but in terms of community and individual responsibility. Possessing a song, story or medical knowledge carries with it certain responsibilities to show respect to, and maintain a reciprocal relationship with, the human beings, animals, plants and places with which the song, story, or medicine is connected.' Heritage of indigenous peoples is under threat of disappearing in many parts of the world especially in African villages and Forests.

Currently the threat to cultural heritage within villages and indigenous communities is the 'developers'. Using a development plan can minimize such threats. Through a development plan, (a policy document which states the objectives which the planning authority wishes to achieve with respect to a defined physical space) which should first be approved thereafter the developer will then opt for a development control. A development control will ensure that minimum destruction is experienced during the construction work. Threat to cultural heritage also occurs when using environmental

impact assessments that are not compliant with the protection of cultural heritage brings evaluation on potential impact of the proposed development.

Environmental Impact Assessment (EIA) is a process designed to bring environmental considerations to bear on the decision making process of a planning application. EIA has inherent limitations, one being its tendency to focus only on the evaluation of impact on the physical environment. It rarely accounts for impact on cultural integrity, including religious and social well being of a community. There is little appreciation taken of the cultural context within which heritage is managed.

According to Mumma (2002) EIA has recently become more integrated in nature, looking beyond the physical environment to the entire management framework, and has brought cultural integrity within its scope. This has enhanced the prospects for the management of heritage, in particular cultural heritage, with respect to which the preservation of cultural integrity is so critical. A move once integrated to nature will lead to sustainable development.

Heritage and sustainable development have a symbiotic relationship: one is necessary for the other (Ibid). This is captured by "Our Common Future" (1987), the World Commission on Environment and Development which defined sustainable development as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

The management of African Heritage therefore must be undertaken in the context of the development needs of Africa, and must be holistic in nature (Mumma, 2002). The

laws that are in place to protect and manage heritage are to a large extent based on 'planning systems'. Many are part of the wildlife management. This has led to the management of biological diversity to revolve around the establishment of protected areas (game parks). Local people were excluded from such areas, it was preserved for wildlife and the forest. Local people were not seen as being capable of playing a positive role.

In recent years, though, recognition is increasingly given to indigenous people and indigenous cultures in the management of biological diversity. Dia (1992) raises four assumptions that traditionally were used by the west for development:

- That colonial heritage assumes that appropriate modern public administration was created during colonial period.
- Assumption that Western methods and techniques of management are the only road to modernization.
- Assumption that every society must go through the same stage before it can achieve development.
- Assumption that any society has the same basic values and goals that characterize the 'developed' countries.

Drawing conclusion on these assumptions is easy: Africa's development must be stimulated from the outside; through transfer of culture. These assumptions are proven invalid and wrong on many occasions. The limits of linear conception have implications for developing policies for the preservation of the heritage, managing the heritage and methods and technique for preserving the heritage. The pressure and constraints inhibiting heritage management programmes are enormous (The World

Bank, 1992). Economic strategies must allow for and protect cultural heritage development programs within the local communities.

Community participation in the conservation of cultural heritage is imperative. According to Aleczander Marc, of World Bank (1992) involving people in cultural heritage conservation increases the efficiency of conservation and raises awareness of the importance of the past for people facing rapid changes in their environment and values. In Africa, weak institutional capabilities, lack of appropriate resources, and isolation of many culturally essential sites are compounded by a general lack of awareness of the value of cultural heritage conservation.

Guggenheim and Kock-wiser (1991) state the advantages resulting from development of participation (1) local people help planners and developers gain a better understanding of local knowledge and experience (2) they improve project design and implementation (3) they can resolve conflict over resources use. Another advantage is the sustainability of the project at hand. For this to succeed, then, the value of cultural heritage conservation must be communicated to the people. Their well being must be realized. This well being should include psychological and spiritual aspect. Traditional systems of heritage management would have had legitimate representatives of the community perspective of heritage management (Mumma, 2002). Furthering the legacy of deterioration of heritage planning is disintegration of community systems, which, together with community leadership, has also undermined heritage management. Therefore, integrated heritage management would then require the restoration of the cultural integrity of communities, including their management systems, their leadership structures and their economic base.

Mumma (2002) posits that communities must function as viable entities if community management of heritage is to be viable. Cognitive imperialism should be avoided at all costs by local people.

Cognitive imperialism is a means by which whole groups of people have been denied existence and have had their wealth confiscated, a system that denies a people their language and cultural integrity by maintaining the legitimacy of only one language, one culture and one frame of reference. This system imposes one worldview on people who otherwise have their own worldview. The indigenous people see 'their heritage as a complete knowledge system with its own concepts of epistemology, philosophy, language, and scientific and logical validity that needs protection from Eurocentric exploitation (Battiste, 2000:193-7)

United Nations supports that protection and recognition of indigenous cultural heritage, like cultural diversity is a benefit to all humanity. This can be attested to UN Special Reporter (1995) which states that :

> Every element of an indigenous people's heritage has traditional owners, which may be the whole people, a particular family or clan, an association or society, or individuals who have been specially taught or initiated to be its custodians. The traditional owners of heritage must be determined in accordance with indigenous peoples' own customs, laws and practices.

Despite this being in place, problems are still experienced by indigenous communities as better explained by the International Alliance of Indigenous-Tribal People of the

Tropical Forests and International Work Group for Indigenous Affairs (1996:78) It states that:

> Our values have been filtered through the values of others. What has been considered worthy of protection has been on the basis of its scientific, historic, aesthetic or sheer curiosity value. Current laws and policy are still largely shaped by this cultural distortion and fail to extend protection in terms which are defined by our perspective.

Whilst protection has been offered to western cultural artifacts, the products and expressions of indigenous knowledge systems which are included in ceremonies and ritual objects and performances, artistic design, works and expressions, songs and dances, stories, subsistence, land and environment management activities such as hunting, fish gathering and use of fire are not protected within the Western cultural laws, a cause of concern for indigenous groups (Davis ,1998).

There is a general feeling among indigenous groups that most museum and heritage legislation in South Africa has a tendency to focus on anthropological and scientific significance of indigenous cultural products rather than on their cultural and spiritual meaning to indigenous people. Part of the agenda of indigenous people is to protect their cultural property and knowledge against exploitation. The problem is that the measures of protection cannot fit into the western system. This arises from the contradiction in the way in which anthropologists handle that which constitutes cultural significance. On one side there is a portrayal of indigenous culture as heathen- a justification for imposing Christianity on indigenous populations. On the other side indigenous cultural heritage is seen as collectable for selling and for

exploration as cultural tourism product. This demonstrates that Western concepts of heritage are based on the construction of hierarchies, on the knowledge and cultural systems of indigenous people, thus rendering them subordinate to western systems.

Ntsoane(2002:6) makes an observation that the conservation and protection of World Heritage properties in Africa requires both commitment and ability. Among affluent societies, a change in attitude can by itself, achieve a breakthrough when people start valuing the benefits of heritage conservation and protection over any costs that such conservation might impose. However amongst subsistence societies, the choice might often be between survival and conservation; and postponing immediate benefits might imply, for specific communities, that they might not survive to enjoy the long term gains. Such a loss of gain in the economic activity of the country contributes negatively to development.

There is a need for economic valuation of Africa's heritage. Cultural and natural heritage are both potent forces, intrinsic to development programmes. They can and should be used proactively to contribute to economic growth and wealth distribution, when the local population is involved as a participating partner. Efforts to eradicate poverty affect, in one-way or another, natural and cultural heritage as well as heritage values of the indigenous peoples. Therefore the heritage and their values should be incorporated as 'development assets' (ibid).

The extent to which heritage values can be incorporated as 'development assets depends on coordination thereof by national laws including South African National Heritage Resources Act, (1999:2). As to how this Act impacts on indigenous knowledge systems one can begin by referring to its preamble:

> This legislation aims to promote good management of the national estate, and to enable and encourage communities to nurture and conserve their legacy so that it may be bequeathed to future generations. Our heritage is unique and precious and it cannot be renewed. It helps us define our cultural identity and therefore lies at the heart of our spiritual well-being and has the power to build our nation. In has the potential to affirm our diverse cultures, and in so doing shape our national character. Our heritage celebrates our achievements and contributes to redressing past inequities. It educates, it deepens our understanding of society and encourages us to empathize with the experience of others. It facilitates healing and material and symbolic restitution and it provides new and previously neglected research into our rich oral traditions and customs.

That is a well-worded preamble. However it fails to deal in a clear and committed manner with the need to explore areas defined as Cultural significance to include the very neglected customs and oral traditions. It should be linked to the Act on Traditional Authorities and to be largely a driver for the 'non-western heritage'. Key projects like the oral history projects happen outside this structure and without the direct involvement of heritage practitioners other than being consulted.

Under general principles for heritage resources management (section 5(7) the National Heritage Resources Act (No. 5 of 1999) reads thus : that identification assessment and management of heritage resources of South Africa must: '*take into account of all relevant cultural values and indigenous knowledge systems*'. It is the only place where the words Indigenous Knowledge Systems are mentioned – only once and that thought should be enough to put courage to the custodians of this knowledge.

Indigenous people in Southern Africa are battling to get their knowledge legitimized and protected in line with their customs, traditional knowledge and practice. Southern Africa's San ethnic groups are challenging the right of commercial interests to profit at their expense (Time, August 6,2001). The reference is at Council for Scientific and Industrial Research (CSIR) and Pfizer the license holder to a medicinal plant called *hoodia cactus* (P57) which is eaten to starve off hunger and thirst on long hunting trips (Mail & Guardian, 2001) The San want to be involved in managing the sites and should benefit from them including *their biological diversity* (Time, 2001).

Biodiversity is the variety of world's organism, including their genetic diversity and the assemblages they form (Reid and Miller, 1989:3 and Anderson, Schucking et al, 1995:60). It means the diversity of life- the rich diversity of life forms on our beautiful planet. It is the very fabric of life- it provides the conditions for life's emergence and maintenance, and the many different ways in which that life is expressed. Biodiversity is in fact the embodiment of centuries of cultural evolution. (Shiva, 2000:8). At the Earth Summit at Rio de Janeiro in 1992, a definition on biodiversity was arrived at:

> **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 a part; this includes diversity within species, between species and ecosystems.'**

South Africa's biological diversity and levels of endemism are extraordinary by global standards. At present, the export and use of South Africa's biological diversity is virtually uncontrolled and commercial exploitation of the country's genetic resources is taking place in a policy vacuum. The result is the benefit by foreign companies and the exploitation of the people from whom knowledge is gleaned. Of great concern, according to, Global Diversity Forum (1997), is the lack of regulatory tools, capacity and know-how to deal with the issues and to ensure that agreements developed optimized benefit to the country. And since Indigenous people are victimized by an intellectual and cultural property law system that not only depends on appropriation and control through individual ownership- a concept foreign to Indigenous systems of regulating creativity (WSSD-Indigenous Peoples,2002). Until changes are made to the existing intellectual and cultural property regime, the taking of the incorporeal property of indigenous knowledge and heritage without any proper compensation will remain widespread.

1.8.5 Intellectual Property

Intellectual property rights are mostly spoken about nowadays than in the past ten years can loosely be defined as creations of the human mind. These could be incorporated in creative or inventive works, including distinctive signs or marks

(Watal, 2003). Communities of Western scientists and their biopirate companies are at loggerheads with indigenous communities who want to share from the profits made from their knowledge and plants material. Many developing countries, African included, are concerned about the pressure and the situation that indigenous peoples have to find themselves in when they have to introduce western-style IPR regimes. This happens as the global trend is moving fast to the knowledge era and fast tracking in technological advancement. These changes include stronger intellectual property rights protection for new manufactured products and remain a course of concern for developing countries whose raw materials are taken away from them and patented in foreign countries. The challenge is to get transfer of technology including the direct investment plan that African leaders call for in NEPAD. Unless African communities are capable of running their own protection mechanisms and patents away from the Western style, economic growth will be slow.

Gudeman, cited in Brush & Stabinsky (1996:110) is critical about Western-style protection. It is seen as creating innovation, profit and monopoly. The monopoly reduces the supply and sustains scarcity. Such power to withhold, Gudeman argues, can be achieved in various ways; one is to avoid establishing intellectual property rights. Hence he opposes the extension of intellectual property to community economy as something seen as 'passing and converting it to the market form, where it may be used for individual gain' (ibid: 112). The expression '*intellectual' property rights* have its emphasis on the mind and thus connote abstraction, decontextualization, formalization and patent law. This is contrary to the way of life of indigenous people under common heritage and shared knowledge including seeds

and skills willingly. Thus for the local community the measure of success for their innovations is not profit but contribution to local sustenance and adequacy for living.

This issue of common heritage can be linked to 'public domain'. The contested nature of the notion of the 'public domain' is expressed by indigenous people in that it is not properly addressed by the IP system. An example is when traditional cultural materials are considered under IP law to be in the public domain when in fact customary law or spiritual restrictions on its use may well still apply from the indigenous perspective (Bhaumik, 2003).

Shiva, cited in Dei , Hall and Rosenberg (2000:ix) posits that:

> The phenomena of 'biopiracy' and 'intellectual piracy', whereby Western commercial interests claim products and innovations derived from indigenous traditions as their 'intellectual property' (through protections such as patents), have emerged because indigenous knowledge systems have been devalued and (it follows) have not been afforded protection. This lack of protection reflects the reductionist approach that the West imposes on indigenous knowledge systems. Also, Western-style IPR systems are biased toward Western knowledge systems, which reduce biodiversity to its chemical or genetic structures; thus, indigenous systems get no protection, yet the theft of these systems is protected.

This ownership over intellectual property is referred to as intellectual property rights, which are exclusive rights granted by a state authority for a given period of time for certain products of intellectual effort and ingenuity, Moshana, in Odora-Hoppers (2002:200). Intellectual property is covered under, copyrights and industrial property, Paris Convention (1883). Organisation of African Unity is objecting to the use of

IPRs to appropriate knowledge and life. They emphasize on non-living organism citing the inhuman act that can come with human cloning, as an example. They also expressed that member countries draw a regulation to the OAU/AU in order to ensure that protection of natural resources in a sustainable manner is guaranteed.

Sedjo, cited in Brush and Stabinisky (1996) supports the protection of intellectual property rights through patents, copy rights, trademark, and trade secrets of biological resources. The protection and conservation of biological diversity is tied to indigenous knowledge because of the historical role indigenous peoples and peasants play in producing and protecting genetic resources. There is a general international consensus to conserve biological diversity (Convention on Biological Diversity, 1992). This affirms the need to empower local communities and recognize indigenous peoples rights.

The need for regulating access to biological resources, community knowledge and technologies and the implication for intellectual property rights as entrenched in the international trade regimes of the TRIPS Agreements is a concern for developing countries. According to the African Model Legislation (1998) two terms were adopted, firstly, Community Rights which includes rights of communities to their knowledge, innovations, practices and technologies, as well as to collectively benefit from their utilization, and to use them in the conservation and sustainable use of biodiversity. Secondly, Farmers rights which, amongst others, includes the protection of their traditional knowledge relevant to plant and animal genetic resources. Farmers should obtain equitable share of benefits arising from the use of plant and animal genetic resources; participate in making decisions, including at national level.

Despite these good intentions the irony is that the indigenous knowledge systems do not get protection but the theft of these systems is protected by the Western-style IPR regime. Intellectual property rights and patent are used by the First World as its primary asset for economic growth, for control of world trade and capture of international markets (Shiva,2001). Through intellectual property rights and patents, the minds and bodies of indigenous people are being pirated; life itself is being colonized.

Thus, it is important to establish new laws of indigenous protection systems that serve indigenous bio- and chemical systems that are related to international Trade Related Intellectual Property Rights (TRIP's) and World Trade Organizations (WTO) agreements. Shiva (1997) argues for a need to redraft these laws so that indigenous people can benefit from their indigenous ways of life. Globalization of patent and IPR regimes is an expansion of the economic paradigm that has caused ecological destruction and contributed to the disappearance of species argues Shiva (ibid). There are serious flaws with patenting as it applies to the indigenous people and Third World at large. Advocates for a moratorium (Shiva 2000a; Shiva 2000b, Shiva 1991, Battiste and Henderson 2000) on patent states that patent is, firstly, a monopoly that will result in increase in price of commodities like medicine. Secondly, the survival of the poor which depends on medicine and seeds will be threatened. The sovereign power of Third World will be eroded thus resulting into ethical problems that are related to patenting life, something that the OAU/AU disapproves of.

Further to this argument about protection of biodiversity, are the flaws in the argument that without patent knowledge stays a secret. Firstly, is that when there is no patent, knowledge is shared amongst those who produces it and those who receive it. Secondly what people thought is provided through patents is not knowledge, but information. Finally patents are known to prevent transfer of technology between the European Countries and the Developing countries. From this Shiva (2001:30) concludes that patents are thus primarily a means of generating revenue, not for generating or transferring knowledge. By introducing secrecy in science, IPR's and associated commercialization and privatization of knowledge will kill the scientific community, and hence its potential for creativity (ibid:32). Once Indigenous communities can use the approach taken by United States of America that is 'the threats to the nation's economic interest are threats to the nation's vital security interests' (Economic Espionage Act of 1996 , US) and refuse Western researchers to take information from the Developing countries to only later patent it as knowledge that they developed, indigenous people will be the victim and the victimized. Such stands will be problematic at this time of Globalization and trade liberalization. Despite this the US uses it to block other countries including its own citizens from developing. Shiva (ibid: 38) argues: 'the globalization of western-style IPR systems, in a world of deep inequalities, is a direct assault on the economic rights of the poor' showing no respect and recognition whatsoever to indigenous people.

Disputes surrounding the demand for recognition and respect of indigenous people's cultural practices and the appropriation of indigenous cultures are contentious. What seems to be at the core of these disputes is that western perceptions have, to a large degree, failed to recognize that indigenous conceptual systems have their own internal

logic and rationality, which are not always translatable into the dominant western legal and political systems (Ivison, Patton and Sanders, 2000). Hence, governments might consider supporting the development of local knowledge registers that patent examiners could access so as to ensure that traditional knowledge is not pirated.

Furthermore arguments by Brush and Stabinisky (1996) indicates that Public subsidy, also known as common ownership, is preferable to intellectual property rights among indigenous communities in other parts of the world including India. Intellectual property is justifiable as a forward-looking institution, most suited for such goals as encouraging innovation. Conservation, however, presents us with goods that have already been produced by collective invention and common heritage. Intellectual property has never been applied in a post hoc fashion to goods that are already in general circulation. Since intellectual property is an exclusionary mechanism, collective management is likely to be abandoned. Individual, exclusionary management may be inadequate to conserve widely dispersed and fragmented biological resources as in the case of countries in the South. The disadvantage of using intellectual property rights for indigenous communities is that biological resources that are already collected and in the international genetic resource system of botanic gardens and gene banks will not warrant intellectual protection because they are already in the public domain and are known as common-heritage.

Common heritage originates from farmers' desire for participation in the flow of collective knowledge, to gain access to ideas and technology that are exotic to their culture and localities. Also farmers and herbalists behave under the same community ethos as the scientist who breeds a new crop variety on an agricultural experiment

station resulting in the concept of biological common heritage and scientific common heritage as coming from the same intellectual well. Common heritage includes the very essence of ethnobotanical knowledge that comes from enhancements that have occurred largely as a result of cooperative exchange and the elaboration of plant-specific information over generations. As to how rural community's knowledge that is not documented in ways that can support claims for intellectual property rights will be executed remains a problem. Yet the Western companies which draw upon those same 'rural community's knowledge' and then define or select from their useful traits in a laboratory are more likely to build a case for IPR that excludes the very communities from which it originated.

An implicit rule of common heritage is that a person or group who joins in the stream of ideas and technology of collective invention cannot monopolize incremental contributions that increase collective knowledge. Common heritage is a major component of the normative structure of science since it refers to the ethos that 'the substantive findings of science are a product of social collaboration and are assigned to the community' (Merton 1973, cited in Brush and Stabinky, 1996). Both the tradition and definition of science assert that findings cannot be exclusively possessed and that the property interests of scientists are limited to prestige and recognition. The Western scientific reward system gives great emphasis to priority in scientific discovery, but priority is not a precursor to converting ideas into commodities. Common heritage and common property are tightly linked in what is referred to as 'communism' of science that is those goods that once produced belong to all and can be shared amongst the people for their common good. This 'communism 'of science has caused problems in capitalist oriented communities like the ones in Southern

Africa wherein products manufactured by the workers belong to factory owners, what Marxists call 'alienation'. Common heritage is also known as 'goods in public domain'. G40 Developed countries argue that since knowledge is already in public domain it renders it outside of protection. This creates a platform for exploitation.

Collective invention in science exists because ideas are products of a community of persons that function over time and space. However, the problem about public good nature of knowledge such as products that belongs to the whole community, presents a conundrum for the capitalists due to commodification of cultural products of the indigenous people. The questions asked are : Has capitalism burst the social membrane of common heritage and collective invention ? How can knowledge be efficiently produced and allocated in a society dependent on private market incentive for regulating production and allocation? Arrow (1962 cited in Brush and Stabinsky, 1996) observes, "in the absence of special legal protection, the owner cannot simply sell information in the open market". This tends not to be the problem since collective invention under capitalism survives in part because of the distinction between ideas and their applications.

In spite of this apparently rather conservative approach, United Nations Convention on Trade and Development (UNCTAD) of 1996, and the Convention on Biodiversity CBD (1992) propose an international certification system for bio-prospecting linked to a code of conduct. Both conventions further argue that:

> On equity grounds it is....essential that information provided by traditional healers, farmers or other local residents which is used to identify potentially

> valuable biological materials, is obtained through informed consent and results in appropriate compensation (Dutfiled, 20002:101).

The appeal to the lack of protection of those biological resources in the public domain can be sought from the Convention of International Labour Law, No. 169 which attempts to protect the rights of indigenous people. Furthermore, the Convention on Biological Diversity, (CBD,1992) does deal with plans and measures to protect the interests of those communities whose biological resources enriches the Western countries. This CBD attempts to replace the common-heritage treatment of genetic and biological resources with some form of proper arrangement. A special section of the CBD (1992) which deals with *in-situ* conservation is Article 8(j) which states that:

> 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 benefits arising from the utilization of such knowledge, innovation and practices.

In the past twenty years new development came about to the effect that the intellectual property rights (IPR) have been extended to cover indigenous knowledge (UNCTAD,1996b). The support came from two main arguments that the need to support this use of ethical and utilitarian rationales. The former refers to the notion

that there exists a natural or moral right for a person to profit from ideas generated while the later refers to the notion that society benefits from allowing another person to monopolize one's own ideas. There is an extension to the argument on support for IPR on ethical grounds which says: that indigenous people have property rights to ideas as products of their labour and since intellectual property exists in industrial and Western societies, it is only fair that it be available to people in other societies. It is seen as a free rider problem; indigenous people may treat knowledge of biological resources as a common good, but it is argued, that seed companies and pharmaceutical companies in industrial nations may treat similar or even identical knowledge as proprietary. Information that is given freely by indigenous communities will then be turned into a marketable commodity via patent protection (Posey and Dutfield,1996). This leads to new trends, strategies and national perspectives in an effort to protect indigenous knowledge.

Internationally, there is little done to ensure that indigenous knowledge system is protected. However, the Bonn Guidelines (2002) are a breakthrough in ensuring 'the sharing of benefits for the us of indigenous knowledge and associated technologies. The Third Session of the Intergovernmental Committee of WIPO dwelled on model contractual agreements, electronic database for genetic resources, inventories of existing database of indigenous knowledge. The Fourth Session had a considerable progress in setting standards for the documentation of indigenous knowledge to use it as prior art (Tripathi, 2003).

India has set trends internationally by introducing Traditional Knowledge Digital Library (TKDL) which includes: documentation of Traditional Knowledge;

registration and innovation patent system; and development of a *sui generis* system. It is hoped that such documentation would facilitate tracing of indigenous communities with whom benefits of commercialization of such materials/ knowledge has to be shared. On the other hand, others believe that documentation may facilitate bio-piracy. They argue that a trade secret of an indigenous community would be maintained only until community closely holds it. That as soon as it is put on paper, it will become accessible to pirates and would be purloined (ibid).

All the above mentioned efforts can only be possible with an introduction of *sui generis* system separate from existing IPR system. According to Tripathi (2003) acceptable and agreed international *sui generis* system will have to be created and there is need to take a holistic view of the entire IP system which provides equity to the creator of knowledge, whether created in laboratory of brick and mortar, or in the laboratory of life.

1.9 Scope of the Study

The study concentrated on the !Xun and Khwe communities in Schmidtsdrift-Platfontein of the Northern Cape Province because they are currently experiencing difficulties in realizing rights to their knowledge, utilization of indigenous knowledge systems and associated local resources and protection against exploitation by foreigners and South Africans alike.

This study consists of six chapters. The delimitation of scope in terms of chapter contents is as follows:

Chapter one gives a detailed overview of the whole study. In this chapter attention is paid to what we consider as the most important aspects of an introduction in this research. As an introduction, chapter one gives some background knowledge about the current state of indigenous knowledge systems as a particular kind of knowledge. The aim, objectives, literature review as well as the definitions of concepts that are related to indigenous knowledge systems are given.

Of utmost importance is that chapter two highlights the fact that African indigenous knowledge systems is founded on indigenous wisdom systems which are experience and knowledge. This chapter then, starts off by a discussion of African Wisdom Systems as Philosophy. Various categories of knowledge that are fundamental in a study of indigenous knowledge systems are also discussed. The chapter concludes by giving a discussion of the research methodology that will be used in data collection and the analysis thereof.

Chapters three, four and five form the core of this research. All these chapters deal with the real problems that the !Xun and Khwe communities are faced with in relation to the research problem. Chapter three examines the socio-economic situations of the two study communities. It also provides the demographic characteristic of these two communities. These factors are however, analysed in order to find their implications for the study problem. Aspects such as Age Distribution, Education, Marital Status, Income levels and household distribution form part of this chapter.

The most crucial aspects that form the backbone of this study, include, community production and sustainable resource utilization discussed in chapter four. These two related knowledge systems are analysed by looking at the impact of Westernization on the two study communities that is the !Xun and Khwe. Problems encountered by these communities in the use of Indigenous Natural Resources are also dealt with.

In chapter five consideration is given to the attitudes of !Xun and Khwe towards the protection of indigenous knowledge systems. The discussion of these attitudes does not only reveal the feelings of the study communities about matters related to indigenous knowledge systems but they also convey significant implications for research and government policy making with special reference to indigenous communities.

Chapter six gives a general conclusion in which the main observations are be captured. This chapter also concludes by giving suggestions for future research in indigenous communities.

1.10 Hypothesis

The historical background of the !Xun and Khwe communities in Schmidtsdrift-Platfontein has impacted negatively on their attitude towards the role of indigenous knowledge systems, socio-economic and demographic characteristics and associated local resources for sustainable livelihoods. The two study communities tend to have developed attitudes towards research conducted within their communities and are

affected by the absence of a government policy to protect and promote the utilization of indigenous knowledge systems and associated local resources.

1.11 Conclusion

The research overview serves as an introductory chapter for this study. Background information has been given concerning the current position of indigenous people and their indigenous knowledge systems in the world. This has been done by indicating that in recent years, up to the present, indigenous peoples and their knowledge systems are receiving great attention from the whole world. The global knowledge race has increased the interest of both western researchers and indigenous people in knowledge systems and the biodiversity of developing countries. It has also been highlighted that in Africa issues of indigenous knowledge have become institutionalised as societies throughout the world try to shift away from the dominant western paradigm as sole system of knowledge in the world.

Both the statement of the problem and the aim of the study highlighted that the protection of indigenous knowledge systems and of indigenous peoples by means of Government policy will not only protect indigenous peoples like the !Xun and Khwe and their indigenous knowledge systems but such a policy will also help with the preservation of both. From a local level the study will assist to create `own' theories that are relevant to be used by indigenous people within their communities.

Literature review has been done by way of looking at the articulations made by previous researchers, scholars and writers who have encountered the colonial

discourse. From these sources this study will help the reader to understand what indigenous knowledge systems entail.

Key concepts such as indigenous peoples, indigenous knowledge, biodiversity, cultural heritage and intellectual property that are most crucial in this study have been defined and elaborated on. Let us emphasise that the significance of this study is to contribute new knowledge to the current debates on policy formulation, integrating and building on the indigenous for development, provision of measures of protecting biodiversity, indigenous cultural heritage and the support for an indigenous research based methodological approach.

CHAPTER 2

CATEGORIES OF KNOWLEDGE AND THEORETICAL PERSPECTIVES

2.0 Introduction

Research carried out by western anthropologists within indigenous communities resulted in the word 'research' itself becoming one of the dirtiest words in the vocabulary of the indigenous people (Smith, 1999). The reason for this is that outsiders' research showed no respect for the languages, the customs, land and ways of life in general of those they termed 'subject'.

2.1 Paradigmatic Problems in Research

Over the past 200 years, the West has taken a monopoly over the very definition of the problem of existence of all societies in the world. The crucial challenge for those in the West wishing to afford genuine respect to those 'other' than themselves would be to relinquish this monopoly, and listen more openly to the discordant messages of silenced populations (Latouche, 1991). Western trained researchers must open their minds to other ways of dealing with knowledge and to change their attitudes about various scientific traditions outside of that dominant model framed within a western concept of progress and techno-rational activity (Crossman and Devisch, 1999). If one culture's view of science is allowed to silence the many other traditions and practices of knowledge, it is a loss to humanity as a whole. This means that the silenced culture will eventually die out and with it the knowledge systems; history and cultures of the

people will also die, leaving its legacy for western researchers to excavate and interpret.

Agrawal, (1995) cited in Semali and Kincheloe, (1999:334) provides three schools of thought dealing with indigenous knowledge as scientific knowledge. The first school stresses the subject matter for research; the second argues that the main differences are based on contextual grounds, as indigenous knowledge is more deeply rooted in the communities' environments, and the third school of thought focuses on the differences in methodologies used to conduct research. Agrawal concluded, however that none of these distinctions can be defended. There exist no substantial differences between indigenous and scientific knowledge. Through methodological approaches research was a significant site of struggle between the interests and ways of knowing of the West and the interest and ways of resisting of the 'Other'. Smith (1999: 108) warns about conducting research:

> This burgeoning international community of indigenous scholars and researchers is talking more widely about indigenous research, indigenous research protocols and indigenous methodologies. Its members position themselves quite clearly as indigenous researchers who are informed academically by critical and often feminist approaches to research, and who are grounded politically in specific indigenous context and histories, struggles and ideals.

Research methods have to adapt to the new struggle for 'concern within a context in which resistance to new formations of colonization still has to be mounted and articulated'. Research is, therefore, not an innocent or distant academic exercise but

an activity that has something at stake and that occurs in a set of political and social conditions (Smith: 1999). Within this struggle for social justice, academic freedom and self-determination is the need to produce new research methods for studying indigenous knowledge. Semali and Kincheloe, cited in Mosha (2000) mention that inquiry methodologies need to be developed that are capable of capturing the cultural embeddedness of indigenous ways of seeing- embedded in these psycho-cultural dynamics, indigenous knowledge is rendered invisible to non-indigenous eyes. While Battiste (2000) calls for an 'elimination of Eurocentric bias in research' through utilizing indigenous language which has suffered genocide and assimilationist policies.

Suziki (1998) and Rain (1999) question the western scientific quest for objectivity in research in indigenous communities:

> To look for objectivity in the aboriginal world is to question one's identity and sense of being. Objectivity as a notion is culturally inappropriate and should not be linked to Aboriginal spirituality and holistic well-being. One does not look for something that is not there. To be objective requires a dehumanizing process. The making of truth is not only a scientific process, it is also a method that encapsulates holistic well-being through the journey of self-discovery through one's cultural process. It is also about the dangers of decontextualising the very nature of indigenous knowledge.

African wisdom systems reject the western construct of removing oneself from the phenomenal world where the world is objectified. Rather it perceives human beings and the phenomenal world is known through the senses, as extensions of each other

(Ntuli, 2002). Peat (1996) writes in support of Ntuli: the quantum theory (to which indigenous theory can be linked) stresses the reducible link between observer and the observed and the basic holism of all phenomena. He adds that 'indigenous science recognizes no separation between the individual and society, between matter and spirit, between 'each of us and nature as a whole'.

Rain (1999:317) states that [in] an articulation and understanding of indigenous knowledge.... It is imperative not to objectify it... to examine indigenous knowledge in isolation is to perpetuate a paradigm contrary to most indigenous knowledge itself. The researcher and the informant both participate in a meaning constructing activity. It is a joint effort (Indilinga, 2003b). This raises the issues of academia and the place that universities play in the perpetuation of objective notions of meaning making and the strategies by which these are learned. In a constructive perspective, the search for an 'objective' truth will be considered futile, some would even consider it a waste of time (ibid: 92).

Universities and their research structures have been contrived to interpret the world in a manner that reinforces the Eurocentric interpretation of the world and is thus opposed to indigenous knowledge (Battiste and Henderson, 2000:135; and Smith 1999:14). Smith (ibid) further states that some methodologies regard the values and beliefs, practice and customs of communities as barriers to research or as exotic customs with which researchers need to be familiar with in order to carry out their work without causing offence. Within this study a critical observation will be made about the de-colonized methodology that approaches cultural protocol, values and behaviours as an integral part of the methodology. Apart from generating new

knowledge, indigenous research also has the substantial task to generate and promote appropriate methods of knowledge production. This also relates to appropriate ways of knowledge critique (Fatonwa & Pickett, 2000).

Research studies by Guus von Liebenstein (2000) revealed how indigenous peoples successfully utilize their locally produced knowledge in the areas of food security, human and animal health and natural resources management. Efforts to develop methodologies that will promote the integration of scientific disciplines and indigenous knowledge should be devised.

It is therefore necessary to establish protocols for research carried out among indigenous communities. Such protocol, writes Ntsoane (2002), should first of all be founded in the laws of the owners of the land. Ethical issues should be reviewed, much as the history of research should be reworked, as the need for 'indigenised' method is pivotal.

Ntsoane (2002:114) in defence of a new methodology that is linked with the 'grassroots' posits that:

> As long as the tools and instruments of research, including the types of questions posed, are not worked out together with the indigenous communities themselves, the problem of understanding endogenous knowledge will persist. Indigenous researchers should be encouraged to form and work within networks designed for the exploration and implementation of new methods of gaining knowledge from their own communities, as well

as to provide guidelines ensuring the preservation of endogenous knowledge and the respect of its holders.

2.2 African Wisdom Systems as Philosophy

Ntsoane(2002) argues that the values, interests, worldview, articulation and knowledge of indigenous peoples must be accepted as the starting point for developing meaningful social analysis, and that the knowledge systems they possess must be the means of achieving that end. Therefore, research does not take place outside the 'being' of a given community. It is influenced by worldviews and methods used. The method should therefore be compatible with researchers' philosophical assumptions regarding knowledge and the research question (Price, 1999). The fact that there is an epistemology in the African world view implies that there is a philosophy in the African world view as well. Kaphagawani and Malherbe (2000:205) as well as Karp and Masolo (2000:13) clarify that since African philosophy encompasses all forms and types of philosophy, it therefore follows that it does make sense to talk of an African epistemology, just as it is sensible to talk of African ethics, aesthetics, and metaphysics, personhood, morality and science, for instance. Although philosophy has always been part of African Thought Patterns, African philosophy has always had to justify the very idea that African culture had anything remotely akin to philosophy, except at the level of a vaguely formulated collective unconscious. This collective unconsciousness can be revealed through new research ethics and approaches.

Hallen and Sodipo (1997:6) warn that if a collector /researcher (own emphasis) begins his critical and non-reflective basis, one could hardly expect him to be sensitive to evidence to the contrary. This has occurred in the anthropological and archaeological researches that were administered on the African indigenous people as western studies. The results in many cases have been the non-acceptance of the evidence that was contrary to the hypothesis set by such studies. When it comes to special attention directed to what indigenous peoples themselves claim to know and how they claim to be able to demonstrate their knowledge, the majority of the western researchers opted for the position that has variously come to be known as subjective and emotional. The western epistemology maintains that much of the so-called knowledge of traditional cultures is magical and superstitious in nature. Much of the practices and beliefs are symbolic or expressive of what their peoples would like to accomplish but which without substantive scientific development such as the absence of objectivity and rationality, they are in fact unable to do. James (1992:153) and Diop (1981: 309-310) proved that there is sufficient proof that the knowledge that the African Continent bequeathed to civilization include philosophy and epistemology from which Africans defined their being in relation to the universe. Obenga supports both James and Diop in demonstrating that philosophy has no origin in the Greek etymology.

2.3 Theoretical perspectives

2.3.1 Disentangling Greece as Home of Philosophy

It is necessary for this study to provide a brief background to certain concepts that are dominant in the Western epistemology whereas they have African origin. In the same

manner as knowledge is universal irrespective of its origin, the African Indigenous Knowledge Systems continue to play a crucial role in innovation, research and development in developed countries. In many instances scholars both in African studies and Western courses are unaware of the earlier studies and research that gave birth to the current western concepts. An example of such a concept / word is philosophy itself. A discussion about the origins of philosophy is pivotal in this study since the research problem needs to be clarified as a contribution to knowledge systems that should influence not only development at local level but nationally and internationally too. The San people (!Xun and Khwe) like all indigenous people the world over possess a unique worldview, art, religion and generally environmental and technological knowledge that has a philosophic base. It is this base that needs to be clarified from a continental perspective, in this case Egypt as home of thought patterns that influenced and developed the Eurocentric science and philosophy.

Theophile Obenga (1992) and George James (1992) reveal that ancient Egypt gave birth to what is called philosophy. The sad story is that many people do not think of Egypt as part of the African Continent. When knowledge is from Ghana it is readily African but not when it comes from Egypt. The African indigenous knowledge is philosophy irrespective of not being written. Many of the wise sayings are not just words but are proverbs and philosophy.

According to research findings by Obenga (1992) what Western scholars call philosophy has its origin in Africa. Western scholars hold that anywhere else other that in the West and Europe, one will find thoughts, religions, cosmogonies, but never real philosophical systems (rationality and objectivity). So only the Greeks founded

universal reason, philosophy and science, in discovering rational existence, in inventing humanism, in constantly extending their analysis of the world. This leads to the question: Can we speak of African Philosophy without misusing the term? Obenga(1992), states that the word 'philosophy' does have an etymology, neither in Indo-European nor in Greek but in Africa. The compound word 'philosophy' has sophos, 'who knows, who dominates an art or a technique'. The progress compound of dependence: philo 'who love', to sophon, 'science, wisdom', hence philosophia, 'liking for science, wisdom'. So the word philosophy has no Greek origin. The word philosophy, philosophia, filosofia, is not originally a Greek word. Obenga goes on to say if, for the Western world, ancient Greece is the birthplace of philosophy, the word philosophy itself has no origin in Greek. This affects African intellectual development outside the Eurocentric thought patterns.

James (1992) notes that we sometimes wonder why the people of African descent find themselves in such a social plight (not knowing the worth of their sage) as they do, but the answer is plain enough. Had it not been for this drama of Greek philosophy and its actors, the African Continent would have had a different reputation, and would have enjoyed a status of respect among nations of the world (Museveni, 2003). A struggle that an Indigenous knowledge system is striving to achieve is to introduce new epistemologies and research ethos.

There are difficulties when dealing with philosophy and what can be regarded as traditional African culture. This happens because Africans themselves are understandably wary of attempts to codify inherited thought systems into static cultural ideologies to which the name 'philosophy' is then appended. This is because

the western education system never credited and recognized indigenous Africans as worthy of reasoning, vision and philosophy. This poses a challenge for legitimization and acceptance of alternative ways of knowing by the West. Hellen and Sodipo (ibid) posit that attempts at 'analyzing' African conceptual and belief systems, again in the name of philosophy, have produced speculative abortions that in the end so discredited and discouraged any exploration of Africa's ways of knowing. Diop (1981) says that African philosophy cannot develop except on the original terrain of the history of African thought. Karp and Masolo (2000) see African philosophy defending the value of philosophy in the newly independent nations of Africa, arguing that philosophical training and tools provide rigor and method that are badly needed for the task of national development. Such tools are needed for South Africa's drive to develop, promote and protect IKS as philosophy of life.

Hountondji (1983:62-63) argues for the existence of African philosophy in a new sense, as a literature produced by Africans and dealing with philosophical problems. Unlike ethnophilosophy which, according to Hountondji, is a pre-philosophy mistaking itself for a metaphilosophy, a philosophy which, instead of presenting its own rational justification, shelters lazily behind the authority of a tradition and projects its own theses and belief on to that tradition.

Odora-Hoppers (2002) comes clear about the deep wisdom in African philosophy. She notes that traditional thought and philosophy embodies insights into human nature and the nature of knowledge that underpins IKS practices and values. It engages with human issues that affect people in their daily lives. This can be seen when local communities are engaged in food production and storage system, when

employed in the subsistence farming and when making art and craft. Such experience can be seen among the !Xu and Khwe art and craft, dance and other forms of increasing their livelihoods. What is legally recognized as living heritage. Through observation and participation one can see methodology integrated in the conception, manufacturing and production of the final work.

Unlike Anglo-American philosophy that emphasizes method, African philosophy sees itself either as an aspect of science or a second order activity having science rather than the real world as its object of study. Hence philosophy in IKS emphasizes content. African philosophy looks at the interrelationship between nature, the universe, life, mind, death, theories of society and morality (Senghor,1965 and Haverkort et al, 2003). Such an integrated approach is part and parcel of the life patterns among many indigenous communities including the !Xun and Khwe in the Schmidrifdt area of Northern Cape who possess a contrary cosmovision and knowledge system to the dominating cultures of the West.

An exploration into indigenous knowledge as philosophy will be based on the assumptions that it will 'explain how African culture(s) resolve those key issues also posed in Western philosophical systems' (ibid). It is an exploration that seeks to account for and be critical of the cultural resources that Africans use in conducting their daily lives.. Wiredu (1980) warns 'traditional knowledge is doomed to self-damnation unless it is subjected to the therapeutic benefits of dialectical and critical reflection and re-evaluation. According to Wiredu, it is wrong to claim that people in the 'traditional' settings lacked the inspiration for critical thinking about theoretical and practical matters of everyday life. This statement is supported by Hountondji

(1983) and Freire, cited in Karp and Masolo (2000), they connect the role of philosophy in the context of African people's definition of their cultural or historical experiences and the complex social roles through which the practice of identity is defined and displayed. Such is the essence and proof of philosophy within the African thought patterns.

Philosophy in the context of IKS begins with African cultural and intellectual experience, with African mentalities, and with African traditions. It represents the creative engagement of the subject with the object of study: a knowledge by confrontation and intuition, creating a dialectical logic, an act of knowledge which is at once theory and practice. Odora-Hoppers (2001) supports the assertion of Senghor in that unlike the traditional philosophy of Europe for instance which is dualistic and dichotomous, founded upon separation and opposition, and which separates body, mind, matter and spirit, African philosophy that underpins IKS conceives the world beyond the diversity of its forms, and seeks synthesis.

Within the aforementioned disputes it is for philosophy to bring to light the value dimensions of environmental problems, indigenous knowledge, and thereby make them open for discussion; and to bring to light the assumptions we make about values, as a general phenomenon and to take a critical look at these assumptions (Cooper and Palmer, 1998:139). Philosophy will help to re-examine the way in which particular concepts are being used. It will assist in refocusing attention on the structure of ideas that particular western concepts are embedded within, bringing this normally hidden structure back out into light. Philosophy will be helpful in drawing attention to the value positions implicit in attempts to bring about social and environmental change to

the currently western dominant intellectual property regime. Philosophic statements can be used to bring a common sense and attempt to look carefully and critically at the intellectual, cultural, social and political context that the Third World inhabitants operate under and which we take for granted.

Hence for any policy to succeed it must be linked to the ways of life of those it has to make an impact upon. 'Building on indigenous' is very important in any developing society. The way people carry their day to day life is in itself telling much about how they perceive the world. So to think of Africans as lacking philosophy by judging from their material possession and lack of reading and writing in a European language is misleading. Every African is a philosopher once having mastered the intricacies of language beyond uttering words. This can be seen in how policy in villages is debated and formulated using indigenous languages that are rich in philosophy and experiential knowledge.

Rawles, cited in Coopers et al (1998) states that, one role of philosophy is that of raising questions about the way in which key concepts are being used, and what is meant by them. Philosophy is well known for examining its presuppositions before it actually begins to argue for something. Within this base is for indigenous knowledge to be seen as a form of philosophy, a sound foundation for articulation. Indigenous wisdom expressions are philosophical and thereby caution for an observation that is for if one is not able to be confident of expressing the meaning of one's culture with the language of another, the entire edifice of cross-cultural studies or indigenous wisdom and of African philosophy written in anything other than African languages is threatened (Hallen and Sodupo, 1997:12).

The Greek philosophy fallacy is linked to the research problem in that it informs the many theoretical bases, philosophy and worldviews that are currently exploiting the indigenous peoples and avoiding any new epistemology to take root from any community other than those in Europe. It is from this Greek misappropriation of Afrocentric concepts that a singularity and linear way of thinking was manifested such as one true answer, one true God and one right way. This thinking pattern gave birth to overspecialization, ranking and social class structure that has strong motivation in the material Western world.

The mono-way of doing things that was developed in the positivist science and bringing into research the Afrocentric approaches can challenge phenomenology era. As Ntsoane (2002) argues, methodologies based on the 'structural-functional' school of thought are restricting and limited in scope when applied to interviewing and collecting data from the respondents in endogenous communities. It is from such positivist philosophies that if something is not measurable, then it is not scientific. That when people observe it is not good enough. Externality of objects became science's trump card over observation without objectivity. This approach reduces objectivity to quantity and not quality. It is on this basis that African indigenous research methodologies are developed to provide alternative answers to the existing mono-linear answer to the world's diverse problems something that is common in the behaviour of western science.

2.4 Categories of Knowledge

In this section categories of indigenous knowledge systems are outlined, illustrated and described.

What stands in the way of getting other categories of knowledge into the public is the very reason of protection against abuse, misunderstanding or for later initiation. The categories of knowledge as discussed in this section bring to the fore the notion of communal, public or common good; the notion of sacredness, secrecy and privilege. Not all systems of knowledge categories subscribe to the Aristotelian syllogism. This is because each community has a conceptual understanding of what it considers as value- laden. It is on these basis that one should ensure not to homogenize the fragmented systems of knowledge found in the different communities or try to cluster thinking patterns on the simple basis that it is from African indigenous communities. The case in point is the Khwe and !Xun as the study communities for this study. They share the same location but not the same language and common historiography.

This section intends to show how different communities identify with their indigenous knowledge categories, the level of awareness and purpose of the different categories for sustainable development, livelihood, identification and so forth. The CSIR and parliamentary portfolio committee on arts, culture, science and technology derive categories of indigenous knowledge that are used in this study from the earlier discussions and workshops that were run within a select group that excludes the !Xun and Khwe and many other dwellers in the rural parts of the country. Those categories include: biodiversity, technology, social institutions, social issues and liberatory processes.

Although it is not always easy to categorise indigenous knowledge due to its integratedness, this section does, however show that there are conscious lines of division within indigenous communities about their knowledge. Other than having the knowledge that is used for running tribal council affairs, hunting and regiments, women affairs, cattle, husbanding, child rearing and upbringing, there are other categories that are highly specialised within a given community. Certain knowledge systems deal, at a highly specialised level, with solving those problems of the community that cannot be solved by the people who are not initiated into specific knowledge for example child related diseases are treated by an elderly woman.

It is from these categories, which were initially identified by the CSIR and portfolio committee, that the new insight will be added. The section also looks into the philosophical base for such categories especially liberatory process. We further add a new category of wisdom that can only be realised through initiation into the cosmic world of indigenous people. Such a category will be discussed with others to establish its relevance and significance within the community.

The other category that is discussed deals with knowledge itself. Although knowledge of the principles and patterns of African civilisation became lost in the consciousness and mental set of African intellects it shall be proven that Indigenous people have "knowledges" as opposed to "knowledge" (Vilakazi 2002). They to some extent are conscious of the categories under which knowledge fall. However such a division or categorization can be linked to the level of induction and orientation that each individual gets through socialisation and mitigation.

A return to the liberatory process at this introductory stage will serve as a clarification process to the difficulties experienced by indigenous peoples. Such a category does not seem to be realised in all indigenous communities. It remains aloof from many members, they are not conscious of it or see it as an integral part of the long time memory, a way that they got from their grand parents. The liberatory processes seem to exclude the earlier involvement of persons or structures. It appears to emphasize on freedom and political struggles of a particular time in South Africa. Its polemic orientation will be dealt with in this chapter from a perspective of relevance, timelessness, and its relation to the indigenous community.

Within these categories of indigenous knowledge are a number of tacit knowledges that are normally not captured and used in major areas of sustainability. This knowledge is not stored by the people, they use it in their past time meetings, and in narratives that serves no real significance for the community. The knowledge is generally used between individuals in different structures in the community and such persons include traditional healers or herbalists.

Since indigenous African community is never sceptical about people's ability to know, and the belief that every person has knowledge about something in the community. This manner of knowing or put simply how people acquire the indigenous knowledge that they possess becomes relevant in this chapter. Indigenous African communities share the understanding of what it is to be human within the knowledge systems. From social and cosmic know-how to be human is to know and understand things, especially the fundamental ideas and principles of life hence the

saying that "the only self-knowledge that is worth having is that based upon fundamental principles". Therefore, this suggests that each category of knowledge has relevance or should at least have in that wisdom, though not being an individual's monopoly can be shared from and within given categories and thus have a purpose.

There is limitation as to what an individual can know, as much as there is limit to 'what can be known in principle' (Dzobo in Wiredu and Gyeke: 1992.59). Knowledge is then like a baobab tree, no one person can embrace it with both arms. Argument about the level and limitation of knowing are further debated by Dzobo (ibid) in saying: "knows all knows nothing'. Such an attitude to knowledge is expressed by the African indigenous knowledge: *Motho ga iphetse , e se naga* 'a person is not the field or a person is not a palm tree that he should be self complete or self-sufficient'. Hence the chief does not give judgement alone (one head does not go into council).

Among the indigenous communities there is a different attitude towards knowledge and towards the holders of such different knowledge. This attitude is also found in proverbs, phrases and idiomatic expressions used by the different indigenous communities. One such expression is; '*bogwera go rupa jwa thupa*,' it is an equivalent of to 'spare the rod and spoil the child'. It is knowledge about the language first then the phrases, expressions are built into such statements. It becomes very difficult for non-Setswana speakers to understand the context in which certain 'knowledge' expressions are used. Therefore an in depth knowledge of the language used by the community is necessary.

Within the indigenous communities there are other forms of knowledge that tend to be rejected outright by elders, women, men and children alike. Though the attitude is different some parents will tolerate new behaviour among their children while other children would disapprove of certain knowledge about modernity of the west within their traditions. Concern about the erosion and disappearance of indigenous knowledge by elders is based on the principle that 'knowledge is like a garden, if it is not cultivated, it cannot be harvested.' An Ewe proverb translates to: knowledge is not the gift of the gods. People are not born with knowledge it is acquired over time.

Attitude towards knowledge (both modern and traditional) is dealt with at different levels and structures in the community. Elders express that the lack of knowledge, ignorance, on the other hand is said to make a fool of a person. At an empirical level, communities are well aware of the significance of knowledge but only at a point where they can relate to knowledge in what they do as value laden. This is captured well by the proverb "*Moenyana pele lobone lwaabo*" that means a person does well to the public on behalf of his community or people.

Other expressions of attitude towards knowledge are experienced when speakers say: *"Sesotho or Setswana ga se tolokwe"*, translation to Sesotho or Setswana is not interpreted. It is not easy to translate or interpret these languages. This expression is also used in a way of protecting knowledge as shall be indicated in the forth coming sections that deal with protection of knowledge. Within the notion of protection of knowledge the attitude is not to disclose with simplicity, having ambiguity and obstruction, under expression and misunderstanding for the non- speakers. It becomes ever difficult to separate knowledge, as used in life sustenance and evolution within

the indigenous mind-set to knowledge acquired by indigenous peoples through time from interaction with other people including the colonial. Since the indigenous of knowledge is embedded in the "essential", "aesthetic", "existential" and not always authenticity. People who are not first language speakers always pick up problems of meaning. Therefore, in analysing categories of knowledge a careful and sensitive insight into the 'self-born' and 'innate' should be paid and explored with consciousness of the influence of exogenous factors to the indigenous. This can be observed when languages from outside a particular community are mixed into Creole or Pidgin.

It is within the indigenous people not to tell all or everything, not to answer all questions. Batswana have a saying: *"kgomo ga e ke e nyela boloko botlhe."* People hide some of their doings. Mutwa (1965) raised his fear of disclosing the secrets of African people in "Indaba, My Children". The truth about such fear when followed in the life which Mutwa lived later on how truthful he was; for many of his people do not respect what he says. It is knowledge of the initiated and keeps the other alienated.

The ability to know, as shall be discussed are critical properties that make one a human being in the worldview of the indigenous community. The person will be whole once capable of grasping reality in terms of fundamental ideas. The question of rationality gained through western schools and teaching will be discussed as well. Active or passive involvement is a process of learning in the community. It will be observed. Conclusion will be drawn from such basis as methods of gaining knowledge, instruments used to disperse, discriminate such knowledge (including poetry, folklore and song.) Knowledge as an expression of statements or prepositions

is a central fundamental principle for human sustenance in life, survival and the essence of being. Without knowledge how would people make real or sense of the environment, of cosmic and the ready to be born knowledge seeded in the different categories is the sustenance of the universe its interpretation and meaning for human existence. Therefore without knowledge that is based on wisdom, indigenous people can easily return to animality (Dzebo. 1992).

This section, once having dealt with the philosophical question of: 'what is knowledge', the need for acquiring knowledge as 'attitude of intellectual curiosity' and desire for "open-mindness", the survival and growth of indigenous knowledge within the globalisation and how the indigenous people understand that for them their knowledge in the post modern world is like the "lion and the antelope live in the same forest yet the antelope has time to grow" shall provide the chances of protecting such knowledge. The forces of destruction are always there in human development, in knowledge development and in the struggle for survival. Hence it is only the stupid slave who says that his condition of bondage is good after a heavy meal. Knowledge as a source of freedom and self-determination is essential for the indigenous community (not the maternal well-being). This will be seen within knowledge categories.

Categories of knowledge can closely be linked to socio-ethical thought wherein the 'I' dies and the 'we' come to being. Within the respondent community nobody is an isolated individual, people depend on each other for many things. Through the inter-connectedness of categories of knowledge systems the commutarian concept of the person is implied through the acquired knowledge that "the human person is naturally

oriented toward other person-persons and must have relationships with them. It is through this relationship that the knowledge acquired will be shared. Hence '*motho ga a iphetse e se naga* (a person is not a palm tree that he should be self complete or self sufficient). The meaning and interpretation of this expression in relation to person, community and the veld is that; whereas the individual person is born into an existing community, not into a solitary wilderness, and is naturally oriented toward other persons, the individual tree can sprout from or be planted, in a lonely place (Dzebo; 1992). Such an analogy provides an understanding of the significance of knowledge not only to the individual for her survival but for biological diversity and cultural and natural heritage understanding.

Knowledge categories address the many sides of the notion of western rationality based upon the knower (west) teaching the unknowing (non-western). Knowledge categorisation is not a trap into the western unrelated knowledge (subjects) but is meant to assess the essence and the underpinnings of indigenous knowledge and its branches in relation to functionaries or structures in the society. Such an exploration will assist in understanding the role of knowledge, its relevance and to cite Diop (1981) it should be aware of itself (and its relevance).

It will be within the selected, debated and analysed knowledge categories that the philosophical base of knowledge used by indigenous people will be understood. The other purpose of such an analysis is to create an understanding from the African philosophy principle of Social Redemption (James George, 1997) a move to praxis and developmental role of knowledge. That is knowledge used for improving the conditions of life; knowledge that being aware of itself helps its acquirer to advance to

a zenith and provide solutions to social hardship; the placement of the confused self within the society and the coherence of society for a ' progressive and developmental' growth that is firstly conscious of itself.

A short reflection on post-structuralist theory of discourse, power and resistance discussed by Michael Foucault is of assistance here. While Foucault takes power relations to be an always-present structural feature of human societies, his theory does not prescribe what forms of power will take in any particular society or area of social concern. Foucault, unlike the Marxist does not start his analysis with the presupposition that the economic mode of production will be the ultimate determining factor and make class relations and class power primary (Weedon 1982:106). Where does indigenous knowledge place itself through its intellectuals? From the analysis of the categories of knowledge the notion of knowledge is power comes up very clearly. Knowledge within the indigenous community is essential for metaphysical reasons, for spiritual and physical connection and living. Therefore power is close to knowledge but not all knowledge leads one close to power. It is the intellectual whose responsibility would be to ensure that certain knowledge, values and norms are positively reinforced and kept in operation within society. Knowledge then can as well be used as a form of resistance (liberatory process). Within the indigenous knowledge the discourse relates to the social and cosmological space occupied by the individual members of the community.

Discourses within the indigenous people's communal life constitute knowledge that is comparatively close to what Foucault talks about regarding knowledge that gives the holder a certain power and responsibility that has to be executed within the

community. The notions covered by the knowledge categories of the indigenous world: 'neither the body nor the thoughts and feelings have meaning outside their discursive articulation; but the ways in which discourse constitutes the minds and bodies of individuals is always part of the wider network of power relations....'

Indigenous knowledge systems community is not always conscious of the discourses in the everyday life. In praxis and theory, knowledge and its relation to power does assist in analysing the need for categorization of knowledge to a cognitive imperativeness will be used to critique the Cartesian, Hume, Newton and Kant notions of rationality.

The definition of power by Foucault is used here below to assist in understanding the link that knowledge has between its different categories. The notion of knowledge as understood by the indigenous people does network with each structure in the society. Hence in defining power Foucault talks about forces of relations that are found in one another: "contradictions which isolate them from one another". What the categorization of knowledge does is: to establish from a cognitive and vantage point the inter-connectedness of categories and that they are at times in contradictions in maintaining social harmony for the benefit of the community. This can be seen when two ethnic groups have to share natural resources. Now the definitions of power in relation to knowledge is important and therefore worth a discussion.

For Foucault, power is the fundamental characteristic of human culture and tradition and as such produces knowledge. But power and knowledge are so integrated with one another that there would be no point in dreaming of a time when knowledge will

cease to depend on power; it is not possible for power to be exercised without knowledge, and it is impossible for knowledge not to engender power (Foucault Michel, 1980).

Indigenous people know that knowledge is power and that power can be abused. That is why within the indigenous institutions there are teachers who have an obligation to consider that the learner is ready to use knowledge responsibly (Dei et al 200: 26).

Categories of indigenous knowledge that exist in any community have to be understood in their relation to each other, the social itself and to the other world. Without an understanding of the cosmic world the indigenous knowledge lacks behind; it fails to have the spiritual heritage. Referring to Gadalla (2001; 29) citing from the Hermetic texts, in Egypt all the operations of the powers which rule and work in heaven have been transferred to earth below... it should rather be said that the whole cosmos dwells in (Egypt) as in its sanctuary...". The cosmic correspondence and all the knowledge that was based on cosmic consciousness was embedded into their daily practices, which became a tradition (Ibid: 20).

Knowledge, which also includes cosmology, religion and agricultural government, does have within itself the categories of indigenous knowledge limitation among the 'knower'. Each category has knowledge largely limited to the social space. Utilization of knowledge within the community is the best way to keep it alive and for it to grow. Knowledge referred to here is not as Dah Lokonon (1997) says to be reduced to woven baskets, handcraft for tourists or traditional dances. It is knowledge relating to the technological social, institutional, scientific and developmental, including those

used in the liberation struggles (Odora and Lopper and Makhale- Mahlangu 1998). Indigenous categories are part of the universe of the indigenous community; it is the universal heritage and a universal resource (Odora- Hoppers, 2002). Therefore this section to a large extent in depth analyses the universality of knowledge categories within the indigenous community and outside it.

Serote (2002: 205) writes:` knowledge is knowledge only if in the end it benefits the whole of humanity by improving the quality of life...' To this notion Fisher (1984) adds that 'knowledge must be developed and evaluated systematically for it to be most valuable. In order to develop knowledge where tacit or empirical it should be clarified that the precision of the meaning in the English vocabulary differs with that of African Indigenous Knowledge Systems.

The challenges of categorisation of knowledge, totalising knowledge according to Francis Bacon, although discredited for postulations says: "Real knowledge of the universe is influenced by; man's tendency to describe and explain the universe and nature (idola tribus); habits and customs of man's instilled by education and which lead to characteristic prejudice; prejudices mediated as well as engendered by the language, and traditional doctrines of philosophy and theology as a kind of conceptional poetry". Such hegemony of western science has been challenged and debated in many publications (Hountondji, 1990, 1988 and 1997 b, Geertz (1983) and Shiva 2002, 1997).

The western science definition of the developing world including its epistemologies did not help the indigenous people to resolve their problems (which were not of their

own making). It has instead separated human beings from their natural environment and created social theories that were overloaded with cultural dominance and 'othering'. Only now through numerous struggles by the indigenous people has the world come to realise that 'knowledge is a life form, that knowledge of a culture is heat to the people'. When you destroy a forest, you are not just destroying nature you are destroying a way of life. Therefore the categorization of knowledge should first be critiqued and debated as a concept whose outcomes will surely influence worldview of the indigenous people in relation to the environment, understanding and interpretation of social space. What is termed cosmovision- inter-relationship between natural, spiritual, and human world.

According to Shiva Visvanathan, cited in Odora-Hoppers (2002:99) democracy does not necessarily provide an environment for knowledge to grow both itself and its users. Democracy is faced with challenges of creating ecology of knowledge-form, science within democracy and ensures movement is destroying or modernising the challenge of seeing the citizen not as a layperson before the priests and experts of science. As truly with the African indigenous community every person is a person of knowledge. It is within the notions and concepts developed in the western scientific vocabulary that the challenges or traps that categorization of indigenous knowledge might first have to free itself. The need for an epistemological independence within indigenisation process in the post-political independence is a necessity if IK has to see itself commanding its own centre.

Since knowledge is pervaded by valuations and decisions of all kinds of the ideas, including that every citizen, every person is a person of science, reason and knowledge, thus pose a challenge 'value basis' of science; scientocratic "chauvinism

of science", unholy alliance of science and 'rationalism'. The finality of such a rejection is manipulation of human beings by scientific methods (de Beer, 1991:65).

Within these challenges of categorisation is what Deco (1992) defined as categories of knowledge that can be traced to sensory experience as their sources. Unofficial South Africa's national pilot dates conducted between 1996 and 1998 have categorised indigenous knowledge into five categories. It is this guide that will be used to asses the efficient, effective and relevance of such categorization for Southern Africa.

Before engaging in such categories of knowledge as postulated by the South African national audit report and Dzebe's "definition, it is necessary to deal with philosophical constructs around knowledge itself, the notion of rationality comes to mind, tradition also features as a plain for experiential knowledge. The author will attempt to provide a polemic of knowledge construct in the modernist, postmodernist and postfoundationalist perspectives.

2.4.1 Polemics of Knowledge, Rationality and Tradition.

Rationality has been a more contested social construct in the past two decades than at any time in human history. Seen in this broadest sense of the word is our particular human ability to cope with our world through optimal understanding that remains conducive to human survival. This is how the western scholars used it as cognitive resource- Darwinian. To say that indigenous peoples have no rationality (Hume, Kant, Darwian) is equivalent to saying they have no evolutionary heritage, no intelligence,

they cannot determine a choice for survival. This is how modernity constructed human reality, on universal postulation.

Modernity's rule-governed judgement and critical discernment were construed as a quest for certainty, and finally fused into the impossible epistemological requirement of finding indubitable foundations for our claims to knowledge (Huyssteen (1999: 239). But because each judgement always takes place in a community, and each community has a particular history, the broader research traditions in which the communities are embedded will now epistemically shape the questions one asks, the assumptions one makes, and the arguments one finds persuasive.

Knowledge is not merely constructed outside the community and through science and theology that is brought to the community; knowledge is validated through collective analysis. Debates within the epistemological post foundationalism enable us to identify the shared resources of human rationality in different modes of knowledge, and then to reach beyond the boundaries of our traditional communities in cross-contextual and cross-disciplinary conversation (Huysstein 1999:243). By understanding the modernist philosophic agenda one tends to reject the notion held for years by the western epistemology that of unified forms of knowledge. The fact that rationality is so closely tied to tradition, should not limit us to choose only contextual consensus and internalist rules. A call for an understanding that within a community there is an acceptance of taking seriously the epstemically or experiential understanding, and the way that tradition shapes the epistemic and non- epistemic values that inform our reflections about cultural heritage.

Third world people were for decades made to believe that there is no other way to the western rationality and universalism. This was supported by modern epistemological paradigms, as we saw, which were typified by claims for universality. By questioning this rationality business, indigenous research works within the post-modern frames of thought to challenge and question rationality and the universal by searching for "universe" and 'universals' within its own community. Modernity rule- governed judgement is irrelevant in creating self- conscious community. Rationality is supposed to be performatively present in different domains of our lives. This rejects the "unified form of knowledge" because the dynamics of human rationality is never housed within any one specific genre of discourse or reasoning strategy only (Huyssteein, 1999:232).

Within a postmodernist frame of mind and theory transversality instead of universality becomes essential in analysing knowledge utilisation and categorization. Transversality is the "splitting of the difference" between modernity and post modernity, replaces universality in an attempt to see unification of all knowledge's, nostalgia for one unified form of knowledge. Huysstein (1999) sees 'epistemological postfoundationalism as something that enables us to identify the shared resources of human rationality in different modes of knowledge. It is clear that neither theological reflection nor the many forms of contemporary scientific reflection require universal epistemological guarantees anymore. What is a challenge for modernity is the need for a more comprehensive and integrative approach to the problem of human knowledge that will not again totalise our views of human rationality into new and oppressive meta-narratives.

Postmodernist science and postmodernist philosophy of science have moved away quite dramatically from positivist and techno-centric conceptions of scientific rationality with its closely aligned beliefs in linear progress, guaranteed success, deterministic predictability, absolute truths, and some uniform, standardized form of knowledge. (Huysstein 1999:6)

Universality of knowledge and science is based first of all on the the local know how. There is no universality in the claim of know-how in the indigenous societies, why does the same not apply in the west. If within a traditional society we relate to our world epistemically only through the mediation of interpreted experience, why then does the western-style techno-centric science not relate to its own world culture and cease universalising the 'traditions' or cultural designs? A reason of a notion of postfoundationalist rationality that would respect diverse forms of human knowledge and unifying links between these domains without totalising them, while at the same time taking very seriously the pluralism we find in the make of post-modernity.

Huysstein (1999) posits that such a transversality within the postmodernity is to rediscover rationality as alive and well in the many and varied domains of our discourses, practices, communities, arts, science, religion, and also in our theological reflection. Indigenous researchers and scholars seem to be comfortable with the commitment found in postmodernity to expose the failures of all foundationalist, totalising metanarratives, and not just accepting the inescapable pluralisation and relativisation of all our beliefs and practices of rationality. In a postmodernist notion Huysstein argues the narrative quality of one's own experience, therefore is always going to be rationally compelling...the notion of rationality itself could never be some

sort of superimposed meta narrative, but will itself develop as an emerging pattern and unifies our experience without in any way totalising it. (ibid:177).

2.4.2 Inter-phasing Categories of IKS

According to Serote (2001) extensive research has been done on IKS in South Africa over five years (1997-2001). The pilot data on IKS confirmed that IKS can be divided into five categories: social, institutional, technology and laboratory process. (ibid:.54). Odora- Hoppers and Makhale- Mahlangu (1998) in their definition of IKS cover the following categories: technology, social, economic and philosophical learning, legal and governance systems. Serote does not elaborate on the categories leaving them to the reader to conclude. Odora- Hoppers and Makhale- Mahlangu do not say categorically that theirs are categories of knowledge but it is clearly a definition of IKS.

Obviously indigenous knowledge might encompass a wide range of knowledge (Britz and Lipinski; 2001) to a point where categorization might not be easy a thing to go by. What seems to have influenced the South African, categorization of knowledge systems is the commercialization or enterprise development. This would have become obvious since the National Audit was fore-run administered and still in the hands of the Council for Scientific and industrial Research (CSIR). The CSIR has to a large extent the Research and Development agenda unlike universities' research centres. Within this research is the commercialization of indigenous knowledge. Global powers are strong and ruthless in their pursuance for economy. Within the debates of categorizing Indigenous Knowledge Systems are the inputs solicited from various

intellectual, academics and practitioners. Human Science Research Council also played a crucial role in developing an understanding of categories of indigenous knowledge. The challenge is the protection and commercialization of indigenous knowledge.

2.4.3 Category on Social Issues

These range from values, philosophy and identity, and how these frameworks guide the development of social institutions. The question that the author debates is the readiness and capacity of indigenous communities to influence development paradigms especially in the commercial and industrial market. Of concern is what Serote (2001: 54) has to say:

> 'Suffice here to say this body of knowledge (IKS) must be explored and utilised only if the basis for the innovation of its products unfolds to compete within the 21st century'.

It appears that it is taking the utilisation into account that belies the subordination of local knowledge to a development paradigm that is largely authentic to them. Serote is looking at the commercial viability of IKS. Serote (2000) says IKS has the potential to let new enterprises or industries emerge, beyond the commercial potential is the social counseling; sustenance of life. More emphasis should cover the social counseling and contribute to life sustenance. Indigenous Knowledge System is also discussed as part and parcel of the African Renaissance. This linkage and centeredness of IKS within political leadership of African Renaissance is criticized by Crossman and Devisch (2002) when they say: 'we note that the new discourse of indigenous knowledge systems is a social and cultural … it is thus an extension of the

political liberation struggle, which has lost vision and momentum due to the transformation itself'. Crossman and Devisch (2002) sees the discourse of indigenous knowledge system being radically weakened and undermined in its aims. Accordingly this is reflected in both a struggle and quest for a new political and cultural ideology and the legacy of apartheid.

Battling with categorization of IKS reveals that this knowledge "may unfortunately represent a prolongation of an apartheid categorization of knowledge, an extension of Bantu knowledge system' as it were (Crossman and Devisch, 2002). Crossman (1999: 27) posit that indigenization can hardly be restricted to a backward reference to traditional and ethnic culture, but rather relates to the broader and fluid, ever-evolving, situation of African today. The alarm warning by Crossman and Devisch should be seen within the context arguments that indigenization can be used by the Afrikaner minority to preserve its own political and cultural identity. The whole process should not easily fall into the trap of apartheid separate but equal development.

It is pivotal at any stage of knowledge development to be extremely aware of the implications of the research outcomes to the very communities 'experts' pursue to represent. Therefore in debating the bases for which knowledge and indigenous knowledge system is categorized a number of considerations are necessary. It is to the interest of knowledge itself in order to understand it correctly to place issues within a larger epistemological framework

Social issues raises problem of younger generation growing outside of the indigenous pedagogical context. The question is whether there is indigenous pedagogy with the education system? Has South African education system indigenised their course content? Another problem is about those people whose rights to identity have been violated as pre-empted through colonial education. The two generations have a great difficulty in connecting empirically with the values. Since this category pertains to culture, spiritual knowledge, histories, oral tradition teaching and learning systems, indigenous ceremonies performing arts and other artistic works; can be used to attend to the problems expressed that one can come across.

2.4.4 Category of Social Institutions

Kwame Gyeke (1992) indicates that the traditional institutions are faced with a difficulty of operating in the modern situation. Today both large political communities are of the opinion that a central government controls the political power. Since this category is meant to protect and promote indigenous systems of governance through traditional leadership and healing; it is argued that traditional leadership 'may be disharmonious with the modern situation'.

The indigenous exercise of medical care is also considered to be included in this category. Sofowora (1993) notes that in Africa, the practice of traditional medicine still requires considerable improvement when compared with the situation in India and China. Traditional medicine cuts across other categories including biodiversity and social issues. Placing it closely under social institutions might be limiting its

potentials within indigenous communities. Traditional healers are the fulcrums around which all others hold on to. Their role is still to be recognized.

Ceremonies and African philosophy are clustered within this category making obvious a space for analysis as to how philosophies can be separated from the rest of the categories. In isolating African philosophy one plays into the hands of exogenous mindsets and influence on other structures such as the traditional authority had its responsibilities reduced and its role limited. This was done due to forces of modernization and privatization, which need this institution not worthy of key economic development. African philosophy is the base for reasoning the existence of all categories otherwise which epistemology will influence them.

Perhaps the authors of those categories should go to great length to link them, to make them parts of a system- integrated and interrelated not appearing disarticulated and merely clustered. Unlike what was argued by Serote at the South African Chapter of the African Renaissance colloquium in 2002, we need a philosophical understanding and articulation of IKS. As a fairly unknown area of research IK should be developed first and foremost from a philosophical point of view. To speed up the commercialization thereof leaves its epistemic root to the knowledge producers of the West. It will lack the essence of its existence as a philosophical issue with a potential to develop into a knowledge power with authority to commend other areas of learning and research.

Ceremonies do not happen in isolation from other parts of the community including the traditional leadership and cultural heritage of that community. In many African indigenous ceremonies culture and art play a key role for the fulfilment of ceremony.

The role of art in the mask parade and cleansing can be observed in West Africa, for instance. Therefore ceremonies done as political gestures do not necessarily restore the dignity and revitalize the spiritual life of the community. There should be a complete community participation with a philosophical understanding and a pragmatic results derived.

2.4.5 Category of Technology

Soodursun Jugessur, in Kwesi kwa Prah (1999) captures the predicament faced by the indigenous people's correctly when he says the superiority of western technology in terms of meeting basic needs and a higher standards of living forces developing nations to depend on such technology, often with scarce attention to the development, upgrading, and exploitation of indigenous science and technology. The indiscriminate adoption of foreign terminologies, without due consideration of local culture and tradition has led to multiple problems in the development process.

This category aims at making African scientists explain their daily practices from a scientific stand point which recognizes indigenous efforts, innovation and creativity. Science and technology should be linked to the community activities. An upgrade of traditional science and technology will give a sense of self-confidence to the indigenous people. This is a challenge that must be faced in the ever-changing world of technology.

Within this category the following issues can be considered vital for the development of the community such as food security preservation, farming methods, agricultural and pastoral techniques. This category is very close to the hearts of women in rural

communities since they form the backbone of the agricultural economy. They are involved in different technological productions that address their daily survival strategy first. Later they consider exporting to the outside world. Traditional people involved in this category, are interested in the equipment they can afford and which would ease tedium, while at the same time performing efficiently to enable them to achieve their aim and to make profit (Prah, 1999:36).

Indigenous technology is about means of making a livelihood, or promoting welfare. The process of spreading welfare and charity should first take place within the community. The category of technology is extremely valuable and is the subject of current litigation, discussion and debate in the World Trade Organisation on intellectual property rights and Convention on Biological Diversity (1992). Special reference is technology transfers, access benefit sharing model and prior art. The latter has a history that proves that some African indigenous communities have great knowledge about ironsmiths smelting processes. In this category there are many interests involved. Shiva (2001) noted farmers, indigenous seed industry, traditional healers, pharmaceutical companies, scientific traditions (west and non –western), and women's knowledge and man's way of knowing.

2.4.6 Category of Biodiversity

Biodiversity is not just a conservation issue; it is an issue affecting economic survival (Shiva 2000). Biodiversity is the means of livelihoods and the 'means of production' of the poor who have no access to other assets or means of production (ibid). This category is the base for which other categories flourish from. It covers a variety of

both plant and animal species. The poor within the indigenous communities depend on biodiversity for food, medicine, energy, fibre, ceremony and for crafts.

Within these categories are issues of sustainable development and livelihood, traditional medicine, foodstuff and related indigenous technologies. South Africa has approximately 200 000 traditional practitioners who are involved in traditional medicine. Of the 3000 species of higher plants only about 300 are commonly used. (Shiva 2000:21). This implies that there is still a lot of South Africa's biodiversity that needs research, development, protection and utilization.

General ecological and botany knowledge is residing within the biodiversity. Indigenous peoples perception and understanding of relations and benefit sharing in the biological diversity can be linked to the cultural diversity. The indigenous peoples perception about the world is constructed differently and though related or similar it is not necessary homogenous. Therefore each community develops patterns, strategies and techniques to deal with issue of survival. This category linked to others will examine the significance of biodiversity for the indigenous people in relation to sustainable development, intellectual wealth and knowledge resources.

2.4.7 Category of Liberatory Process

The explanatory notes on this category by the South African national audit report made popular by Serote (2001and 2000) and Mogege (2001), does not provide an in depth or apolitical explanation other than stating "the process of resisting the imposition of colonialism and apartheid". These explanatory notes open criticism like

the ones raised by Crossman and Devisch (2002:106) wherein they see that the dialogue in South African IKS today very much reflects the quest of the African National Congress leadership and government as a whole... to recover and mobilize the social and political awareness and energy previously invested in the liberation struggle. The whole issue of liberatory process should not credit one political school and discredit any other process that is not in the mainstream. The question is the extent to which it is interpreted reveals that it does not have the essentials of indigenous other than when the military was out in exile they were exposed to traditional knowledge of the many local communities such as Tanzania, Botswana and Lusaka. The nostalgic feeling of years of struggle and lessons gained are at times replaying themselves in social and political circles of those who were involved. A critical insight into the lessons learnt from traditional authorities and institution in the liberation struggle at all the epoch of history needs a serious revisit. Least only the dominant cultural expression will be the ones that will solely interpret cultural development that was influenced by traditional practices.

The other problem is that cultural, artistic and knowledge creation during apartheid was among indigenous, not solely anti-apartheid. It is known, how much in the homelands folks songs, writings, drama, theatre and praise poetry was composed in hero- worshiping the home leaders. It was the people mainly in the rural areas who composed the songs and created a wealth of vocabulary irrespective of their political correction to the liberation struggle. Such knowledge or memory is there. Ignoring its existence does not help in the academy.

In attempting to broaden the definition of the liberatory process, the author brings to light the indigenization that took place in the urban hostels, in the mines and the township. A culture, that united people and created a common identity, ethnicity through diverse expressions. The rural people taught children indigenous songs that were later translated into struggle songs; the songs took a different meaning (e.g. KwaZulu by Mariam Makeba). That knowledge of African folkways as seen from the songs by Mariam Makeba, Thandi Klaasen, Dolly Rathebe, Dorothy Masuku, when inculcated in children through socialization becomes a basis for resistance in later life.

Elabor – Idemudia cited in Dei et al (2002:102) notes that oral forms of knowledge such as ritualistic chants, riddle, songs, folktales an parables not only articulate a distinct cultural identity but also give voice to a range of cultural, social and political, aesthetic, and linguistic system- that were united by colonialism.

Through utilising this category numerous aspects of indigenous traditions and collective histories can be recovered, reclaimed, and reconstituted by African peoples as they struggle to rejuvenate their loves and livelihoods. Indigenous knowledge was used in many ways as source of hope, strength and resistance. Terms such as resistance, collaboration, false consciousness, and sell-out are generally used. Those, who were not part of the system viewed resistance songs as neither resistance or collaborative. The concern here is with the peoples themselves, singing about what they feel, experience or concerned about.

As noted by Leroy and Landeg White in D.Crummy 1986 (195-205) many societies in Southern Africa, as elsewhere on the continent, take for granted that poetry is an

appropriate medium for discussing the impact of power. Through observing how indigenous communities would use songs to criticize chiefs and headmen, husbands by their wives, fathers by their sons, employers by their workers. It was acceptable to attack a person within the song. That is exactly what the people the Chimurenga in (Zimbabwe), Mau-mau (Kenya), in Mozambique in South Africa in all the anti-colonial struggle including within their internal colonisation would use songs for.

2.5 A Discussion on Structure and Categories of Knowledge

Batiste and Henderson (2000) warn that there is no need to separate reality into categories of living and non- living... what constitute the knowledge of a particular indigenous people must be decided by the people themselves. Accordingly the ways of knowing reunify the world and allows it to reconcile with itself. Knowledge helps the indigenous people to live within the context of flux, paradox, and tension, respecting time pull of dualism and reconciling opposing forces. (Ibid). It is necessary to develop these ways of knowing as an act of freedom of consciousness that will sustain the very knowledge out of which it sprung.

Batiste and Henderson (2002) suggest a structure of knowledge that shows the interrelatedness and interdependency of indigenous knowledge.

Knowledge as it is tacit or implicit or otherwise as argued by many philosophers has different functions in any given society. Knowledge can assist and facilitate progress among members of the community. It assists in making people realize their worth and purpose on earth and within the community they live in. Amongst many communities

are pockets of knowing, the knower can manage what she knows and share with others. It is at this level of knowing that one can realize whether she posses a particular knowledge or not. Knowing different things requires categorization. This categorization should not be confused with the western 'boxing' of human existence. The following are structures from which different knowledges can be derived from.

- Knowledge that all things in the ecosystem are dependent on each other;
- Knowledge that is structured according to most of the linguistic concepts by which the indigenous describe;
- Knowledge that personal relationships reinforce the bond between persons, communities, and ecosystems;
- Knowledge that an extended kinship passes on teachings and social practices from generation to generation;
- Knowledge that sacred traditions and persons who know these traditions are responsible for teaching.

From the above structure the interrelation of knowledge can be observed. Cajete (1995) concludes that no separation of science, art, religion, philosophy or aesthetics exists in indigenous thought such categories do not exist. Castelleno, cited in Dei et al (2002:23) talks about sources of knowledge (teachings, empirical and revelation). These categories, he notes, overlap and interact with one another. Castellano's knowledge categories of traditional knowledge; knowledge handed down more or less intact from previous generations.

- This knowledge might include passing on technologies refined over generations. This knowledge is 'wisdom'.

- Empirical knowledge: knowledge gained through careful observation. This knowledge is developed time validity but not confined quantitative analysis of repeated observation in a controlled manner.
- Revealed knowledge: knowledge acquired through dreams, visions, and constitutions that are understood to be spiritual in origin. In this instance knowledge is received as a gift at a moment of need. Within this knowledge is the sacred or enduring knowledge that is used by initiated people, and it is gained through spiritual means. Indigenous knowledge is said to be personal, oral, experiential, holistic and conveyed in narrative languages.

The following are Dzebo's Categories of Knowledge drawn from the Akan background.

- Knowledge passed down by word of mouth- traditional knowledge that is passed from one person or generation to another.
- Knowledge gained from reflection. No immediate experience is required as source based on deduction
- Knowledge from formal schoolbook knowledge is to a large extent divorced from the realities of the African experience.
- Knowledge gained as a result of acquiring a certain level of awareness or understanding of things, relations and situations based on fundamentals.

Robert K.N Mwadime noted three categories of knowledge which are the basis for decision-making and content of education.

They are as follows:

1. Knowledge that can be held by all or most individuals in a specific locality,
2. Knowledge which belong only or mainly to a certain group or clan or tribe,
3. Specialised knowledge that is technical and skilled persons has it.

The above knowledges often draw on both external knowledge and local technologies and methods of experimentation to generate. It is knowledge that confirms that the only self-knowledge that is worth having is that based upon fundamental principles (Ewe proverb). It is from the foregone discussion that the analysis data from the different communities will be understood, interpreted and linked with other parts of the thesis. It was necessary to provide arguments and critical insight into what constitutes knowledge and the polemic that goes with it. Categorisation of knowledge within the indigenous communities is not to be taken lightly by scholars, communities, leaders and intellectuals.

It is pivotal to understand what has to be taken as knowledge over time, has been largely derived through the gaze of non-indigenous people and has varied with the changes in the nature of Western knowledge itself, its knowledge making process, ideological frameworks and its purpose. Fatnowna and Pickett, in Odora- Hoppers (2002:71)

2.6. Indigenous Research Issues

Research in indigenous knowledge systems needs to decry the manner in which the social sciences have joined the natural sciences in assuming that the subject (researcher) can be separated from the object (what is being researched) through a methodological screen (Weskott, 1987). African wisdom systems reject the western construct of removing oneself from the phenomenal world where the world is objectified (Ntuli, 2002). Objectification is used as a key cognitive modality; and it is this objectification that designates everything other than the 'self' as object. In this western gaze indigenous knowledge is tacitly decontextualized, severed of the cultural connections that grant it meaning to its indigenous producers, archived and classified in Western databases, and eventually used in scientific projects that may operate against the interest of indigenous peoples (Semali and Kincheloe: 1999). Where there is no history, consciousness, no will, and no sense of empathy or compassion with the objects of research. Within this review appears an indigenous person as sufferers, as objects of research but not as full agents and owners of knowledge. Works done on the San in Botswana and Namibia in the late 1800s and the late 50s do have evidence of how San people were reduced to sub-human, objectified and vilified at times for not complying to the western hypothesis and scientific methods.

According to Smith (1999) the scientific method, combined with the colonial enterprise, thus stand implicated in the worst excesses of imperialism. The term 'research' stirs up in local communities a silence, conjures up bad memories that still offends the deepest sense of our humanity. It galls non-western societies that western researchers, intellectuals and scientists trained in the tradition, can claim to know all

that there is to know about other societies, on the basis of brief and superficial encounters with those societies. It often appals indigenous societies that Western science can desire, extract, and claim ownership of a people's way of knowing, and then simultaneously reject those people who created those ideas, and deny them the opportunities to be the creators of their culture and own notions.

Indigenous researchers are, therefore, expected, by their communities and by the institutions that employ them, to have some form of historical and critical analysis of the role of research in indigenous communities (Smith, 1999). Despite the extensive literature about the life and customs of indigenous peoples, there are few critical texts on research methodologies that mention the word indigenous (Smith 1999:5). Research is therefore not an innocent or distant academic exercise but an activity that has something at stake and that occurs in a set of political and social conditions. Since research is about satisfying a need to know, the definition of concepts and their problematic nature is important in a study of indigenous knowledge.

2.7 A Critical View of Research Methodologies

Crossman and Devisch (1999) argue that only the development of plural perspectives on knowledge and plurality in the human science and in the international academic community at large will allow African universities to root higher education in the local and national socio-cultural context without incurring even further isolation. Furthermore the scholars hold fact that: Western trained researchers must open their minds to other ways of dealing with knowledge and to change their attitudes about various scientific traditions outside of that dominant model framed within a western

concept of progress and techno-rational activity. Problems arise, when Western researchers and agencies regard their work and strategy recommendations to be based on the assumption that the theories, methods and strategies that have been shown to be useful in highly industrialized countries can be applied, without modifications, to countries with totally different structures, internal conditions, and relations to the international system (Martinussen, J, 1997).

Studies in development theory show the image of the "Other" held by the West shifts from one extreme to another. Since the day of encounter, indigenous peoples have always been a source of fascination. What struck most is that whenever the issue of indigenous knowledge is discussed, sooner or later the recurrent question of validity is raised. Is it scientific? Or, being composed of odds and ends, does it combine the best with the worst, juxtaposing without distinction empirical observations and obscure superstition (Nakashima D. and M. Roué, 2002).

Scientific methods of 'excavating' information within the indigenous community have at times left the local people with promises that were never fulfilled. It galls non-western societies that western researchers, intellectuals and scientists trained in that tradition, can claim to know ALL that there is to know about other societies, on the basis of brief and superficial encounters with those societies. It often appalls indigenous societies that Western science can desire, extract, and claim ownership of a people's way of knowing, and then simultaneously reject those people who created those ideas, and deny them the opportunities to be the creators of their culture and own notions (Smith, 1999 and Odoro-Hoppers, 2001). Weskott (1987) cites the case of black people in the United States who were measured, analyzed, processed,

dissected, and reduced to manipulatable data that advances the career interests of the investigators, but did little to improve the plight of the investigated. Within Western culture there has been a long-standing concern for values and that ethical behaviour is at risk in the scientific quest for objectivity, where science separates from the humanities (Fatonwa and Pickett, 2002:219 & Huxley 1975:1-11)

Odora-Hoppers (2001) posits that indigenous peoples and local communities have suffered as objects of research but not as full agents and owners of knowledge. Now it is time for IKS, and codes of conducts to be put in place to ensure that no such abuse occurs again. These issues challenge researchers and research institutions individually and collectively to define new fundamentals not only for research and theorization, but also for linking with communities.

Research is envisaged as a close-knit set of practices that provides solutions to a problem in a concrete situation. Subsequently, the research is likely to be multi-method in approach, the choice of research practice depending on the questions asked and the context in which the research takes place (Indilinga, 2003). These in–depth ways of understanding represent new epistemologies that are more relevant to the lives of indigenous people, whose cultural knowledge has previously been silenced by the restrictions of positivists scientific methods, Jill Abdulah and Ernie Stringer, cited in Semali and Kincheloe, (1999:149). Positivists say that ' there is only one logic of science, to which any intellectual activity aspiring to the title of 'science' must conform. Thus the social science and the natural science must use the same method. The problem with the positivist approach is that it intrudes on people's lives and

imposes systems of meaning onto those who are subjects of study posing a problem for researchers from the indigenous communities.

Researchers from the indigenous communities are now increasingly sensitive to the colonizing potential of these systems of meaning and more aware of the ways that social scientific explanations put to the study. Marcus and Fischer (1986) state it clearly when they say, the promise of intimately representing and valorizing difference and diversity, providing an epistemological and cultural critique that demystifies mainstream cultural representation, revealing interests behind and within cultural meanings expressed in social text and discourses, and increasing understanding of the forms of domination and power that exist in mainstream society. All that indigenous knowledge research calls for is for researchers to be more humble, patient, determined, sensitive, flexible, creative, unconventional, open minded, critical and cautious (Greneir, 1998:46).

This can be achieved when researchers thoroughly interrogate the three approaches of doing research, that is the positivist social science known as positivism; Interpretative social science. It is concerned with how ordinary people manage their practical affairs in everyday life; and critical social science deals with critical process of inquiry that goes beyond surface illusion to uncover the real structures in the material world in order to help people change conditions and build a better world for themselves.

Crossman & Devinisch, cited in Odora-Hoppers (2002:117) observes that it has often been demonstrated that compulsory methodology employed by science and urging standardization, uniformity or conformity may not, in the long run, provide the best

possible for the development of new scientific models, methods and discoveries. Hence Ocholla (2002) argues that the role of research is to develop new theoretical and practical paradigms for solving both holistic professional problems and, in particular problems affecting the continent.

An obsession with indigenous ways should be avoided where possible by observing the extreme ideological counter-productive positions. An exclusivist or relativist advocacy for a radical indigenization of scholarship. And militant safeguards against intrusion by non-indigenous scholars in the lead to position Indigenous Knowledge Systems. This stance facilitates the agency of indigenous people in articulating their own views and is espoused by Wiredu (1997) in that 'multi-methodological field of Indigenous Knowledge Systems should be aimed at representing IKS in their own right and context. However, as argued by Mutema (2003) these can lead to inevitable essentialism, reification and exotification of Indigenous Knowledge Systems.

Mutema (2003) furthermore posits that the researcher, it can be surmised, does not necessarily have to be indigenous to understand IKS. Inversely, the indigenous researcher, although privileged with the tools of language and proximity to the experience of indigenous communities, should not assume a privileged perspective, for indigenous scholarship is not hereditary but it is earned through research and a reciprocal exchange of views with indigenous communities. The bottom line is that the researcher needs to acquire and employ appropriate methods of gathering and interpreting data.

2.8 Research Methodology

Taking into consideration the complexity of investigating the attitudes of !Xun and Khwe communities in South Africa and in particular Schmidtsdrift-Platfontein, the research study followed a participatory and triangulation approach. There was a wide consultation with community members and resource people from different relevant institutions in all the phases of the research process. Both qualitative and quantitative research methods were used.

Qualitative research methods such as key informants, interviews, examination of available documents, focus group discussions and personal observation formed the core of data collection methods; while a questionnaire was administered to the research sample in an effort to collect supportive quantitative data, such as the socio-economic and demographic characteristic of the respondent community members. Whether data has the property of being quantitative or qualitative is very important since it determines the way data can be utilized. Although the tendency exists to consider numerical data as more reliable and easier to utilize, in particular by statistical techniques, science is inconceivable without non-numerical data which may lead to an incomplete description of the social reality (Bless and Higson-Smith, 1995:100). Moreover, in specific areas of social reality, purely qualitative research is often the most adequate method of investigation.

Quantitative methods are frequently used in conjunction with qualitative methods to give an overall representation of social behaviour within a particular population. After data from both methods were collected, the results were triangulated for a

comprehensive understanding of the research problem. The use of a combination of quantitative and qualitative methods is analogous to painting a picture. The quantitative data draw a sketch of the overall population, while qualitative data are used to flush out the characteristics of the population (thereby creating a three dimensional picture). After data from both methods are collected, the results are triangulated for a comprehensive understanding of the research problem. Qualitative method collects in-depth information, whereas quantitative method although providing comparative information, always leaves open the question of validity of responses. As stated by Lillejord and Soreide(2003) what characterizes qualitative research is the continuous dialogue between the research question, theory, literature, observations, experiences and the people involved. To be part of this ongoing dialogue is also the most important means researchers using qualitative methods have for validating their results.

In qualitative research it is quite common for researchers to develop their own tools for analysis on the basis of their theoretical approach or perspective. According to Lillejord and Soreide (2003) a qualitative research method produces knowledge with certain characteristic that must be taken into consideration when interpreting the data and presenting the 'findings' of the research. It is thus obvious that a qualitative research method has its strengths and limitations. There is no way that one can say that one research method will be suitable for researching indigenous knowledge. Buckland (1991), states that methods of research need to be appropriate to the research problem at hand. Moahi (2002:241) suggests that we need to be more creative and consider methods other than the famed survey using questionnaires, which inevitably forces us to quantify the unquantifiable.

Qualitative research methods 'mimic a familiar everyday activity, the human conversation.' This however facilitates an easy talk between the researcher and the people interviewed. People are allowed to use their own words to share their firsthand information about the matter being investigated with the researcher (Lillejord and Soreide, 2003). This brings the ethical consideration into question and should be discussed throughout the research process. The researcher had to perceive himself as a participant in the interpretations of the data provided. A questionnaire was administered to the research sample in an effort to collect supportive quantitative data.

Within indigenous communities the question of narratives as a means to collect and interpret data was seen as a possible methodology. This study also employed one of the characteristic traits of the qualitative interview, the narrative, which makes it 'especially well suited for an inductive understanding of cultures and in pursuit of indigenous knowledge. In order to understand indigenous knowledge, it is therefore important to identify and understand the narratives, through which knowledge is culturally constructed, interpreted and shared in the community (Lillejord and Soreide, 2003: 92-3). The use of narrative in research presupposes certain and consistent perspectives on truth, knowledge, and validity (Riessman, 1993). In order to explore the personal experience of the community members in the study towards the various aspects covered by the study, the researcher undertook to document these experiences in the form of narratives. The latter are important for a study of this nature because they describe sequences of experiences undergone by a certain group of people, i.e community members attitudes towards IK and implications for research and policy. These people are presented either in situations that need change or as

reacting to such change. In turn, these changes reveal hidden aspects of he situation and the people involved, and engender a new predicament which calls for thought, action or both.

It is necessary at this point to raise issues of indigenous research and understand the difficulty that indigenous researchers are faced with in defending epistemologies and methodologies based on western science. The point here is that the first challenge that indigenous researchers are faced with is to legitimize and defend an orientation based on exogenous interpretations and assertions. A methodology that ignored the need to be carried out by research such as 'satisfying a need to know and a need to extend the boundaries of existing knowledge through a process of systematic inquiry'. The western-based research methodologies have generalized and primitivized through rationality the indigenous people's social reality. Henceforth, it is necessary and important to undertake an urgent task to de-colonize and pulverize western research methodologies and epistemologies by coming up with those indigenous epistemic philosophies and approaches. Western dominant knowledge is no more relevant as the sole epistemology when dealing with developing countries (Ntsoane ,2000).

2.8.1 Subjects

Qualitative Informants

Focus groups of 5- 12 members stratified on the basis of age, gender, marital status were randomly selected in each study community for discussions. The identification and selection of the participants was done in co-operation with community leaders and other key-persons. Participation in the discussions was voluntary.

Key Informants

Key informants are often well-placed individuals in their society due to their position and the knowledge they derive from their different positions in the community. In this study they included community leaders (male and female), traditional healers, and community workers among the study communities.

Quantitative Informants

In cooperation with community leaders and other key-persons, random samples of at least 50 people (25 males and 25 females) were selected from each study community for administering the questionnaire.

2.8.2 Methods of Data Collection

Focus Group Discussions

Semi-structured focus group discussions were conducted in each study area and were audiotape recorded for later transcription and translation. Focus group discussions were used to obtain in-depth information on the attitudes of the study communities towards indigenous knowledge and its implications towards research and government policy.

The collection of data relating to indigenous knowledge is part of a social contract between a researcher and local people (Baker, 1979). As such, the onus rests on the researcher to ensure that the adopted methods of data collection are appropriate to the

cultural context in which they are to be used, and are directed to the abilities and requirements of the concerned respondents.

Group interactions were utilized in this type of research method to generate data and as a source of data analysis. The assumption was that there was an interaction that was productive in widening the range of responses, in activating forgotten details of experience and in releasing inhibitions that are part and parcel of interviews with individuals.

Key informant interviews

Key informants were interviewed in all the study communities as a means of gaining in-depth qualitative information on the research problem. This is a traditional method used in culture-related studies for extracting knowledge about cultures through well-placed individuals in the society. It is part of an ethnographic approach, often being used in situations where access to official records or data is weak or non-existent. Where official records exist, it is used as a means to gain further insight by questioning key people about specific social and cultural problems. However, data obtained was not to be taken at full face value because prejudiced opinion could be part of the key informant's contribution. Cross-referencing with other informants was used to check the validity of information obtained.

A Questionnaire

A questionnaire is a method of data collection employing written questions that are answered in writing by the person being surveyed. Questions contained in a questionnaire are specific rather than broad. Depending on the available leading information, some questions may be open-ended while others may be closed with a specific range of responses from which the respondents are expected to pick.

A questionnaire was used to obtain factual information such as socio-economic and demographic backgrounds of the respondent community members. Both open and closed-ended questionnaires were administered. Although the questionnaire imposes the researcher's categories upon the respondent community it can be useful in that it saves time and is cost effective. The written format of the questionnaire does not provide enough flexibility, in that the information that can be obtained is limited to a person's reactions to the written questions. The rate of returning questionnaires can be slow. In other cases the questions asked can stimulate interest and make the respondent unreasonably biased.

2.8.3 Data Analysis

Qualitative data in the form of audiotape interviews were transcribed and translated into English. Interview and participant observation notes were typed and a content analysis was conducted. Whenever possible the Site Research Assistant was the person who transcribed and translated audiotapes for a specific site.

Quantitative data in the form of the questionnaire was checked and coded by one research assistant to reduce coding errors. One data entry clerk to reduce data entry error entered all questionnaires into the computer. Data was analyzed using SPSS/PC+ and narrative analysis.

Interpretation of data was done on the basis of the conceptual framework and objectives of the study. Out of this analysis the final report and recommendations were written.

2.8.4 Research Procedure and Use of Research Assistant and Interviewers

The researcher was responsible for implementing respondent selection procedures, completing interviews accurately, and field checking data collected. All interviews (qualitative and quantitative) were conducted in a face-to-face situation.

Due to the sensitive nature of the topic as well as linguistic considerations, !Xun and Khwe speaking research assistants and interviewers from the study communities were used. Three !Xun and three Khwe speaking interviewers were used in each study community to administer the research instruments. Focus group discussions were conducted by the researcher and his !Xun and Khwe speaking research assistants.

It is necessary for the researcher to gain a legitimate entry into the area by not appearing as an intruder. A letter of introduction was obtained from the North-West University (South Africa) to be handed to local authorities in the study communities. Added to this the researcher visited the study community to introduce himself first to

the chief/leader of the area as well as the elders and other local authorities and prominent people and local opinion leaders. This visit explained the objectives; aims and methodology of the research to the hosts. It is through this legitimate entry that confidence was established between the researcher and the hosts.

The researcher discussed the formulated questions with key persons and leaders to get their input. This was done because the agenda for indigenous research should be set by the locals together with the person to carry out the research. Through such entry and buy-in into the research questions by key person in the local community, the legitimization of the research was attained.

2.9 Training and Pilot Testing

Research Assistants were trained in methods of conducting key informant and focus group discussions as well as standardized interpretation of questions and concepts. All questions and concepts were converted into !Xun and Khwe through group consensus for the various !Xun and Khwe dialects. The researcher and his assistants form the study communities reviewed standardized data collection methods, standardized observations, implementation of sampling procedure and research note taking. During the training period pilot tests were conducted and final changes were made to the research instruments.

Pilot tests were conducted among each ethnic group to ensure that questions measure desired attributes; as well as validates cultural and linguistic appropriateness of the

wording of the questions. Final changes were made to the research methodology and research instruments on the basis of the pilot tests.

2.10 Validation Checks

Validation checks were made through all phases of the research to ensure the highest level of data accuracy. Coherence of narratives through the research process as well as within the presentation of results itself assisted in validating the study. During the course of community data collection, the research coordinator for each site checked all interviews of the day. Information which was unclear or missing was clarified by returning to informants to review issues and concepts. Rieman (1993:67) states that the more useful the results are, in the sense that they become a basis for the work of other researchers, the more valid the research results are.

2.11 Ethical Consideration

Since research is an important part of the colonization process because it is concerned with defining what legitimate knowledge is, it is necessary to discuss the protocols and ethics that go with it. Ethical consideration has always been a problem experienced by indigenous people when research is conducted within their communities. Initially the problem was sparked by negative attitudes that were displayed towards the indigenous people. The researcher has always been the Whiteman doing research on 'other' people in the 'field'. These reactions position indigenous communities as powerless and research as disempowering (Smith 2000: 118).

Within the issues of ethics are two distinctions between legal requirements and ethical code of conduct. The legal definitions of ethics are written and interpreted in the Eurocentric base of individualism and individualized property. Amongst other issues that the western defined ethics and protocols misunderstand is the need for a 'development of policies and practices which recognize indigenous peoples as the guardians of their customary knowledge and have the right to protect and control dissemination of that knowledge(ibid:119).

The researchers should demonstrate a keen and sincere sense of humility and respect and should be sensitive to issues such as language and conceptual frameworks of the community. The term respect "***tlhompo, tlhompa or tlotla***" is used by indigenous communities to underscore the essence of recognising the other person as worthy of humanness. Respect, in all indigenous communities is a constantly interchanging principle which is expressed through all aspects of social conduct (***tlotla mmaago le Rraago*** = honour your mother and your father); it is shared between young and old alike (***Susu ilela susana gore susana a go ilele).*** Smith(2000) observes that from an indigenous perspective ethical codes serve partly the same purpose as the protocols which govern our relationships with each other and with the environment. Hence, within the ethical consideration IK researchers need to strive to personalise their research endeavours and need to note the protocol associated with both national and international research agencies and government departments.

The researcher, therefore, endeavors to learn the ways of the people, understand their culture as well as their fears and expectations in order to be able to fit into the life of the people. The researcher showed respect to the people and their ways of life.

Without this the researcher might have faced disastrous consequences for the success of the enterprise of data collection.

It is within these ethical protocols and codes of conduct that the researcher must have respect for the people; listen to what they have to say; share and be cautious and not to flaunt his knowledge and trample on the rights and dignity of the respondent community.

2.12 Conclusion

This chapter has indicated that Indigenous Knowledge System is based on Indigenous Wisdom systems. Indigenous knowledge is to be viewed as a form of philosophy in its own right. Philosophy in the context of IKS begins with cultural and intellectual experience with African mentalities and African traditions.

The methodology followed in this study is based on the notion that research is not an innocent or distant academic exercise but an activity that has something at stake and that occurs in a set of political and social conditions. The research methodology used here and the discussion of the various indigenous knowledge categories clearly put forward the motion of 'elimination of Eurocentric bias in research' that has dominated the research scene for a number of decades.

Categories of knowledge such as the category on social issues, social institutions, technology, biodiversity and the liberatory process were discussed in detail. These categories of knowledge are to be seen as the base of indigenous knowledge systems. Both qualitative and quantitative research methods were used. Qualitative research methods such as key informants, interviews, examination of theory, literature, observation, experiences and the people involved was followed. The quantitative

research method was used for the interpretation of statistical data from the research communities.

The chapter further argued that western trained researchers must open their minds to other ways of dealing with knowledge and to change their attitudes about various scientific traditions outside of that dominant model framed within a western concept of progress and techno-rational activity.

CHAPTER THREE

The Socio-Economic and Demographic Characteristic of the Study Communities and Implications for the Study Problem: Western and Indigenous Perspectives.

'The culture of a people is perhaps best reflected in their language or languages' Chancellor Williams (1987).

3.0 Introduction

This chapter discusses the socio-economic and demographic profile of the study communities and their significance and implications for the research problem. These characteristics include age, gender, education, marital status, language, and ethnic affiliation of the respondents. This discussion is based on the argument that throughout the years of struggle for survival in their respective local environments, indigenous communities were discriminated against on the basis of race, age, gender, language, ethnical affiliation and marital status, etc.

Richard Lee (1979) shows that previous studies tended to examine the impact of this discrimination on the lives of the indigenous communities such as the Xu and Khwe in Southern Africa from a western perspective. Using a participatory approach the following sections discuss the socio-economic and demographic profile of the study communities and their implications to the research problem from both a western and indigenous community perspective. This includes the community members' own views on how their socio-economic and demographic characteristics were the basis of marginalization and exploitation by outsiders; economically and culturally.

Louise Grenier (1998:37-38) and Ntsoane (2002:114) posit that besides the consideration of an indigenous perspective to a research problem it is pivotal to consider ethical and protocol issues. In indigenous research, certain questions are difficult to pose and others defy established western research protocol concerning research methodology. However, as long as the instruments of research, including the types of questions posed, are not worked out together with the indigenous communities themselves, the problem of understanding indigenous knowledge will persist.

3.1 Age Distribution

An investigation into the age distribution of respondents in the study communities from both a Western and local community perspective is an important indicator for the amount of manpower available for socio-economic and cultural development. Table 2.1 shows the percentage chronological age distribution of the respondent community members in the study areas.

Table 3.1.Percentage Chronological Age Distribution of Respondent Community Members

Total Number of Respondents !Xun (Males n=3 Females n=31) Khwe (Males n=27 Females n=23)

Age Group	!Xun Males	!Xun Females	Khwe Males	Khwe Females
15-24	0	0	0	0
25-34	31	29	44	31
35-44	26	22	29	30
45-55	15	20	14	0
Above 55	28	29	13	39
Total	**100**	**100**	**100**	**100**

Table 3.1 shows that the majority of the respondent community members (more than 50 %) male and female in both study communities were in the age group category of 35 years and above. This was very important for the study because due to their maturity and experience they had a thorough knowledge and substantial experience of community events with respect to the research problem. In this context age consideration of the respondent was crucial.

From a Western perspective, age tends to be reduced to a chronological number. In indigenous communities age is more than a chronological number of years. Age is part of a person's social status including responsibilities and privileges. In indigenous African communities including the !Xun and Khwe, a person's 'cultural' age was determined by his/ her adaptability and capacity to survive and contribute to the

welfare of the community, this implies that age within indigenous communities is seen within a 'holistic person'. Hence in some African indigenous communities, including the !Xun and Khwe, marriage and childbearing amongst young women was not a cultural shock because it was part of the social and cultural responsibility. Whereas, in Western cultures after a particular chronological age a woman is expected to get married and bear children.

Moreover, different from Western approaches to documentation of age, indigenous communities document birth differently and the date of birth tends to be controversial from a western perspective. In indigenous communities birth was noted in relation to socio-economic, natural and cultural events in the community into which a person was born.

Responding to the question about age and how it is identified within the local community's perspective a respondent community members had this to say:

> *'Our old people remember times of hunting expeditions which mark some of our birth. We had to get told that so and so was born when such and such a thing happened in the community. It is not easy to remember the years because you were not counting, one two three five ...NO! You ...If lucky will be right to guess the right time in history. I am not....say....let me say having the number so and so for my age. I do know that as a young girl we used to go with our mother and other women to fetch fruit and other wild life needed for the family. I was the youngest of the girls and when told my birth time....I do not remember about other girls. But when in Angola the was so much cold*

winter. People had problems with getting out in the veld to hunt. That is when I remember to be a young girl then.'

From this interview it was not easy to determine the chronological age of a person in the western perspective because estimation of age was related societal events. The researcher had to probe other members to try and provide a historical date. Like the interview about the birth date it appears that many of the elders (above 70 years) did not have the exact date. A young male respondent had this to say:

'Most of the age and birthdates in the ID are wrong. But we do not care. Our older persons say it is just to help them get them get the government money to support their children. The IDs are wrong. A lot of people had lied about their age. You see.. I am not saying that they are not useful (the ID) to our people but if I do not have a birth certificate how can I be sure of my age.'

The birth certificate issue shows that the Identity Document age does not reflect the true characteristics found in the age determination between the Western and local communities perspectives. The age reflected in the ID might not correspond with the historical event to which many elder respondent members of the community were born into.

" I don't remember when I was born' Khwe Community member

" No... I cant tell you when.. my children are many and are old. My husband died in Namibia before the War. I am say about Mandela (She laughs) very old you can see for yourself.' !Xun community member

'I am about over 70 years old'. !Xun community member

'My name is Dapaisa and I fought Angolan and Namibian war and lived many years before that in the veld as a hunter for my people... years?... Okay ...over 70.' Khwe community member

'I was born, my mother used to say during the frost period when the girls did not go for the traditional initiation.' !Xun community member

In some cases in both the interview and the questionnaire there was no answer provided for a respondent's age. For those members of the community who said they did not remember how old they were, I requested them to refer to the ID. It was only then that they related their age. This demonstrates that the ID age does not correspond with the historical epoch based on the age distribution of local community members as a cultural practice.

It is clear that birth is not date bound in many local communities. It can be revealed through community folkloric and tales from which a deduction is made to estimate the number of years a person might have. Other people refer to the weather and natural disasters to link to age. It might be that the event had a great impact on the community. Historical events are important and crucial in the context of age distribution. Birth is and remains a process linked to the events in the community including the cosmology.

3.2 Educational Level

An examination of the distribution of educational levels of respondent community members was important in the sense that education, like age, has an influence on the type of knowledge (both Western and Indigenous) including human resource capacity that exists in that specific community. This refers to who knows and who can do what in the community. Table 3.2 indicates the percentage distribution of the educational levels of the respondent community members in the two study communities.

Table 3.2. Percentage Distribution of Educational Levels of Respondent Community Members

Total number of respondents !Xun (Males n=38 Females n=31) Khwe (Males n=27 Females n=23)

Educational Level	!Xun Males	!Xun Females	Khwe Males	Khwe Females
Informal	61	87	77	78
Primary	13	9.6	11	21.7
Secondary	26	4	5	1
Tertiary	0	0	7.4	0
Total	**100**	**100**	**100**	**100**

Table 3.2 shows that the majority (more than 60%) of the respondent community members (male and female) had an informal education, this is education based on a person's life experience in society.

Table 3.2 shows the level of percentage of respondent members of the study community as having acquired informal education. This type of education is significant to the study community because of its holistic approach to life-long learning about the environment and ways of survival. Informal education plays a pivotal role as a carrier of traditional cultural practices among the members of the respondent community. This type of education emphasizes the utilization of indigenous languages. Various theories that deal with education fail to take into cognisance the fact that for the indigenous peoples it is their language that is the true vehicle to learning first about their own world and then about the outside world.

There are various schools of thoughts that address the question of education. The Marxists for instance, argue that education teaches workers to accept and submit to their exploitation. It transmits the ruling class ideology and interests. It justifies and legitimises exploitation of labour and its products. Western structuralism sees education as a social institution fostering personal development and self-fulfilment in society. For example Ngugi wa Thiongo (1987:43) stipulates the nature and impact of colonial education on indigenous people in the following words:

> At age six, children of my age cohort were required by the newly imposed colonial policies to go to the western style schools to acquire formal knowledge through education. At the school we were forced to give up knowledge of folkways that one had acquired in our homes and from the community, as these folkways were considered primitive. We were also forced to give up our mother tongue and acquire a foreign language, the language of the colonial master, we were not educated in a way that would encourage us to pursue our own political and economic environment or that would make us a viable part of our own country. We were in fact educated against our interests, in the sense that we were now being educated by outsiders who saw advantages in giving us an education that would make us more susceptible to their control... our pride in who we were by virtue of our

traditions and culture was completely negated.

It is the above situation that calls for the promotion of an educational system that respects the socio-cultural environments and needs of the indigenous communities. The purpose of such an inquest is to understand education as a necessary part of repackaging indigenous epistemologies for their sustainable livelihoods.

An interview with Kxao Moses (2000), Manager of Nyae Nyae Conservancy community posits:

> *'I want to see the Bushman write their own history so that we can interpret our own language, because when you are translating everything you lose things; we need to write our own history. If we make sure our kids go to school, to the tech, to university, if we adults stand up and put our heads together and combine our knowledge and skills, then the road ahead will be much better'.*

Tomson Nore, member of the Khwe community spoke about the significance of education at the opening of the !XunKhwesa Combined School (5 April,2004) said:

> *'We celebrate the right to education for the Khwe and !Xun. Education is also a right for us. The !Xun and Khwe has the human rights given to them. The right to education is also for the San people. Mr Nelson Mandela promised this school and personally made the soil turn here. Now we have the school'.*

> *'The San in Southern Africa should be accorded the necessary respect, ethical care and given the right education. Education will assist the San with all the skills to life in a modern world.'*

'Young people should learn from their elders and tradition in order to win the path out of modernity of the West to that of indigenisation.Things have changed and the young people lack the knowledge about hunting and food gathering, utilisation of technology and related sciences that the elders are good at'.

Social and cultural indicators including education from the community perspective should assist researchers in responding to the socio- economic needs of indigenous people, and to deconstruct the current education system' and reconstruct it to include local knowledge systems including indigenous perspectives of socio-economic and demographic factors. Senale and Kinchoboe (1999: 244) argue that within the notion of the 'educated' and 'uneducated' as portrayed from Western perspective is the need to seek alternative or new orientation that will have to place value on 'educated' and the role of 'outsiders' in development vis a vis that of locals. Is to be educated an ability to read western constructed reality buried in the Roman Alphabet?

Focus group discussions with the community members indicated that before the advent of the white man educating children was a cooperative effort between the family and the community, because both these institutions were responsible for the outcome. This process continued through centuries, impaired, but never completely broken off by the impact of the Westernization. The sentiments it inspired and the kind of character it moulded help to explain the !Xun and Khwe in this research. Western perspectives to education were also inculcated into the local people's conceptualization, for example Concepts such as 'illiterate', 'illiteracy', 'uneducated',

'educated' found their way into the vocabulary of indigenous people through western 'formal' education.

Indigenous peoples such as the !Xun and Khwe in Southern Africa have developed a great knowledge about both their cosmos. The introduction of and utilization of Roman alphabets in these indigenous communities limited their level of expression and alienated them from contributing to the world body of knowledge. A person regarded, as literate through understanding of Roman alphabets is not necessary perceived in that manner within their oral based cultural expression or even in those indigenous communities that do not recognize and utilize Roman alphabets. In most of these indigenous societies the community taught who are highly technical such as smiths and designers do not posses knowledge about Roman alphabets.

Interviews with key-persons in these study communities indicate that:
If knowledge about the utilization of Roman alphabet is the sole determinants for a persons literacy level, then it means that if the reverse is used for example, the knowledge of the Chinese letters then the majority of Europe will be 'illiterate'.

> *'I cannot read the papers. I do not have things that people watch (T.V). I am only a child taught by my parents about the environment. We the Bushman can read the land and the animal. We can be good teachers about environment and conservation. I am good at hunting but that education is disappearing. I cannot save it by memory. I am teaching young people to respect the knowledge about the land. The animal. The plants. I am not reading any paper but can heal people and bring happiness to the children. I do not need the papers. Maybe my grand children should go to school. They are at school now*

but I do not understand what they are taught. The prayer and songs. But not the dance of the Bushmen. It must be brought back. Do you have a camera I want to dance.....Next time I will dance with the children that is education.

(Traditional healers)

What the respondent member is referring to here is that the 'Bushman' have their own way of protecting their knowledge through social practice. Children can go and learn how to read and write so that they have a proud future and live with other people of the outside world. However, the knowledge about the land-biodiversity and cultural heritage is key for the survival of the local knowledge. Reading the land means that local communities should be part of the cosmologies, they should use the land for livelihood.

Furthermore, the right to education and its relevance for the cultures of the local communities should be considered. Education should be part of the cultural heritage of the people. It should, according to the key-person be linked to what the people know already, what they immediately need to do is to deal with the current problems without sacrificing the future challenges of the environment. Education is important for the !Xun and Khwe since it assist them to understand the impact of the external influences on their cultural traditions. Education is linked to the biodiversity, wherein if the school does not teach pupils the importance of the land, the importance of the veldt to the life of the 'Bushman' then it should be the parents who should teach their children. But here are some of the challenges that are faced by the local community in preserving the knowledge of hunting.

What about the knowledge that they have about hunting will they be able to give it to their children?

> Salvador Badiste: *'I don't think the change does not give us space to do so, because one practices what he or she sees. Now that the people have got the knowledge on how to hunt and to gather natural food in the veld, they are no more practicing it, the skills are in danger of dying out because they are no longer practiced. Whenever you see a hunter then whenever he or she wants to hunt, it is in other individual's land that is illegal and they can be caught and it will be a problem. The only way we can preserve our skills is by having a history project where we can record the knowledge and put it into books although children of today will learn in a different way from those who learnt by going with their parents to the veld to hunt and gather food.'*

The other interesting point which supports the !Xun statement above is by Elders-Mary Lou Iatitail, Canadian Cree community member when she said:

> *When I was brought up, education was very important to my family. Education was, in their way, the way...They understood the world. They were very responsible people. They taught us at a very young age to respect, to accept and share, to be strong and determined people. They were preparing us for that in the future....'*

The above statement shows that there are challenges and plans to protect the knowledge of local people. Education becomes a critical component of development

in the social-sphere of the !Xun and the Khwe especially now that they have moved away from the land that they used to hunt from (Namibia and Angola) and now just resettled in Plantfontein where land has once again been made available for game development. The suggestion of a history project as a way of protecting the knowledge is quite innovative and will involve modern skills and education. Since learning in the western perspective depends a lot on the school. the youth will have to be able to read and write in order to learn about their traditional cultures. Therefore, protection of cultural history becomes part of education for future generations who will have to unfortunately learn from books no more from their parents or the veldt. Kamama, one of the respondents has this to say about the importance of education for Khwe children:

> *'Education is human rights. It is what makes other people develop. We need to be free from depending on other people for help. The children of the Khwe need education to live with the outside world.'*

This statement shows that both formal and informal education is now seen as significant for the children of the San. Education connect people with the outside community, thereby breaks isolation. This can be seen as part of what Paulo Freire (1993) wrote about the education that liberates because it consists of acts of cognition, not transferrals of information. He concludes that education serves a positive reinforcement in society. It fulfils the void and the emptiness a person.

According to the International Labour Organisation Convention, no 169 (Article 27) education should address the indigenous people's special needs and should

incorporate their histories, knowledge, technologies, value systems and their social, economic and cultural aspirations. Any analysis of data from indigenous communities should avoid using what W.E.B Du Bois (1903:45) calls 'the double consciousness' which refers to the sense of always looking through the eyes of others, of measuring one's soul by the type of a world that looks on in an amused contempt.

From indigenous knowledge research vantage point, research and education should be the nurseries and vehicles of promoting indigenous African cultural practice and knowledge Therefore, any inquiry into educational development in an indigenous community, should not only look at maintaining certain imposed standards. The inquiry should reshape the contents of those hallowed 'standards' and improve upon them by incorporating indigenous perspectives. For instance, Setswana contains expressions which prove that education is culture based. *Tloga- tloga e tloga gae-modisa wa dikgomo o tswa natso,* and *moenyana pele lobone lwa lwaboo.* About education elders would say *Thuto ga e golelwe* (it's never too late to learn) demonstrating the life-long nature of education. People always learn new discoveries or rediscoveries that are useful for utilization in the present situation or in future. Hence the !Xun and Khwe opted to have a school built for themselves so that their children can be taught in order to contribute positively to the developments of the community. Benjamin, a respondent, expressed the necessity of going to school by saying:

> *'The school is important because we, as youth will be like other people. The other youth get help because they can write and ask for it. They are trusted to read. We need a school for us to be teachers of our people.'*

A Khwe respondent member juxtaposes Western and indigenous traditions and attests that:

> *'I do not go to school but my sister does. She learns but is too shy to tell me about school work. But I tell her about the traditions of the Bushman. She always asks me but I do not.'*

Based on the focus-group discussions and observation of similar discussions amongst indigenous communities Ntsoane (2002.a and b) assessed and concluded that a European based system of education continues to undermine local knowledge. Frustrated by the western style research he further on posits that western developed research methods are not providing sufficiently flexible tools for conducting research among indigenous communities.

3.2.1 Indigenous Language and Cognitive Issues

"There can be no freedom until there is a freedom of the mind". Lorenzo Turner.

Fatnowna and Pickett (2002) argue that cognitive issues that affect the indigenous people has to a large extent do with language, without which any researcher will find it difficult to do work with the people. Since the main door into a knowledge system is through its language, the control of learning and use of a foreign language misplace the moral universe of values that are intrinsic to indigenous people. Through the use of foreign language knowledge has no direct lived connection to one's cultural identity and role.

In highlighting the importance of an indigenous language for an indigenous community, Ms Moyo, a respondent member, expressed clearly that she cannot think in Afrikaans but in her !Xun language. She can tell stories and talk endlessly:

> *'I want to speak my !Xun language with you. I want to hear what I say because Afrikaans is not what !Xun think. We always talk our language to each other not Afrikaans. No. No. No English too difficult. Never. I try a little only Hallow. But with !Xun I can tell stories and talk all the time. I need !Xun language to be able to talk at School. It will be nice.'*

Anton, another respondent member supports Moyo's statement that the English language cannot replace the Khwe words. One deduce from his comment that Khwe people need to coin a number of new words in the Khwe language that refers to the new objects and type of food they buy these days:

> *'I do try to speak English but then I know that the expressions are limited. Other words are not found in English. The Khwe words are not English and to translate I struggle a lot. I hope that in future my Khwe will have developed words that we need to call the objects and food that we now buy in the shops.'*

Through the usage of foreign languages to interpret and analyse the socio- economic conditions of indigenous communities lead to alienation due to misinterpretation of their local realities.

Language as a sector in the socialization, economic perception, and political awareness remains the essential control of thought. It becomes impossible for indigenous communities to direct their future without controlling their language. Because the culture of a people is perhaps best reflected in their language or languages as indicated below:

Now that you write in your language and worried that it is no more spoken properly, is there a future for the language of the !Xun?

'We are busy developing !Xun and very soon it can go into the school and it might take 3 years to use it with the children but she does not think that it is the youth of today who will do it. Maybe the children in the future. Wegoentji a !Xun member.

Who teaches you read and write your language? Is it outsiders, or the !Xun themselves?

> *"It is one black person who has lived among the !Xun for a long time and he knows how to read and write the language.* Wegoentji

What is your feeling about the language of the !Xun now that you will be able to write it in this new South Africa where there is democracy?

> A: *I'll be very happy if I can start to write my language. It will be very good for future generations to read and write their own language.* Wegoentji

Do you think the outside world is interested in learning the San languages except to just research about them?

"I think they are interested in looking at how the San language sounds. Some of them are doing it for tertiary studies, their masters or doctoral studies. The reason I am saying this is if you look at individuals who do research in the San communities is that they do research on topics they are interested in and they just collect information and they do not return. In such instances we know that they got their degree and they find no need to come back to the community.' Salvador

The challenge from Salvador's response is that the students who do research from the San community do not only learn about their language but also about many other issues that bother the San community. Salvador's concern is that these researchers do not return to share their experience with them. They fail to share these experiences after they have passed their degrees. The concern from the interview is that those who learn and end up writing the San languages should return and assist in development of the writing of the language.

Each social group has its own worldview and within it a sense of language which is in precision of the vocabulary and structure for such a social group. Asante (1985) links language to social and economic activity when noting that, "All language is epistemic. Our language provides our understanding of our reality".

Political order and disempowering played each other during the past forty years in South Africa. Ethnographers in those languages that excluded access to results interpreted social events; even if the result of study was completed the language factor limited those who were affected by the problem. Therefore, in this chapter an observation should be noted on limitation that knowledge or environment and cosmology of the indigenous is not considered as worth in the profile. Such an omission as in previous studies by missionary and botanists can and this results in transubstantive errors such as mistakes of meaning. According to Ani (1994: 548), transubstative errors occur when the cultural manifestation of two groups of people a similar, yet the cultural substance, which gives the manifestations meaning, is different. The knower, for instance of a specific culture will attribute meaning, to the behaviour of a member of that specific culture by utilizing his or her own cultural substance. To the extent that the cultural subsiance of the groups differs, the knower will erroneously interpret the behaviour in terms of his or her own perspective and thereby commit a transubstantive error.

From afore mentioned interviews it shows that misinterpretation, misinformation and under-representation of the social realities of the indigenous people continue even in this post fundamental era. The socio- economic profile can be used for various other reasons by the indigenous knowledge researchers. In the event of developing mind sets that will advance the struggle, which will assert the ground and ensure that the knowledge that indigenous people possesses remain relevant in their socio-economic cultural space. Prior concern and overt discussion is needed when questioning the significance of socio-economic profiles in the global understanding of an indigenous community.

3.3. Marital Status

The study was interested in examining the marital status of the respondent community members because from both Western Christian and African cultural perspective. In both perspectives the marital status of a community member has a bearing on his/her social, economic and cultural status in terms his/her rights and duties in society.

Table 3.3.Percentage Distribution of Marital Status of Respondent Community Members

Total number of respondents !Xun (Males n=38 Females n=31) Khwe (Males n=27 Females n=23)

Marital Status	!Xun Males	!Xun Females	Khwe Males	Khwe Females
Single	32	33.	22	35
Married	54	67.	70	61
Divorced	8	0	0	4
Widow	6	0	8	0
Total	**100**	**100**	**100**	**100**

Table 3.3 shows that majority (more than 50%) of the respondent community members in both study communities were married. Interviews with both individual and key persons in these study communities reflected the importance of marriage in the social status of a community member. This is elaborated by the following response from a community leader among the !Xun:

The following narrative indicated the impact of westernization on the status of marriage on these indigenous communities, especially the introduction of wage labour and monetary economy at large among the people:

Both western and indigenous African society reacts to and treats a married and a single person differently. When a person enters into married life he/she acquires a special role in society and carries specific social responsibilities as a husband or wife. Marriage goes with social expectations of being a father or being mother which is bearing of children and ensuring survival of the family and community as a whole. Different local communities have their own understanding of what is expected from its members once they enter into marital contracts. Unfortunately the Judeo-Christian types of marriage have influenced many people. These western influenced marriages together with education tend to have changed the worldview and epistemology of many African traditional communities including the !Xun and Khwe. Although there are still traditional rites done for married people, they tend to be symbolic without further practice and sustenance after the couples had married. Wage labour is needed by many people who are near the age of marrying. Marriage life among these communities is not contacted with rituals of the west, which means that, there is no magistrate involved and therefore most marriages remain unregistered by government. Despite these, there are few cases of divorce among the study community. This assists in carrying forward the heritage and lineage of the family across generations. It strengthens the role of marriage as a social status that binds families and performs social contracts. It was on this base that it was important to enquire about the significance of marriage in the community.

Tomson Nore, a Khwe member respondent states that:

> *'Due to the fact that traditional norms and values are still visible in my community, the division of labour is still visible. More men went out to work,. Women do child feeding and washing clothes (domestic work as home wife).'*

The answer shows that the roles of women and men have changed. Although men go out to work, they do not perform the traditional hunting and gathering duties any more. They are now contracted in National Parks, the Military, Security companies and many other jobs. The women are alienated from the veldt, from the gathering of fruit and food. They are now housewives with limited responsibilities and are dependant on men for providing livelihoods and finance. The division of labour has also taken the modern toll; it is based on industrial society not the agrarian where farming is key to the lives of the community.

According to Salvador, a !Xun member respondent, the !Xun couple is married for life. The !Xun man had a special connection with the veld and the food that grew in it. Salvador says:

> *'They stay in as one partner for life' and as far as I remember from the elders they respected their women traditionally, they looked after the children and collected veld food. The men were the hunters.'*

Another !Xun member respondent, who builds on Salvador's comment on the value of the traditional married life of the !Xun confirms that:

'Married people have to act respectively and guide those around them and give advice to young people.'

The advice that was provided in the traditional married life was based on traditional education and socializing the youth in the broader community. Nowadays with the advent of western influence among indigenous communities many young people see the traditional ways of living as backward and irrelevant for today's life challenges. Hence the youth are now gathering in clubs to discuss their own affairs without the participation of their parents. These affect the traditional expected role of married couples as providing advice for the young people, not only in their family but also in the community as a whole.

Responding to the question about the role of married people in the community the following conflicting expectations among youth and old members of the study community was expressed. The responses of the old members of the study communities reveal adherence to the traditional way of life:

!Xun community member stated: *'Pay lobola to the wife's parent'*

Another !Xun community member added: *'They are the breadwinner of the home and should guide the family better'*

'They are the breadwinner of the home and should guide the family better.'

Said the other !Xun community member.

"*To have children*' !Xun community member.

Khwe community member added: *'Should help advice to the young ones'*

'Help in the community.' said a female !Xun community member.

Khwe community member concluded thus : *'Assist the needy in the community'.*

The general impression from the answers provided above is that married persons are still expected to perform certain responsibilities for the welfare of the members of the family and community.

Wegnoenkie, a young man in the Rock Art Centre provides a good understanding to support the responses of the !Xun and the Lhwe members given above.

'They look after children and do chores and the young ones drinks and they do not have infrastructure to spend their time. And the conflict arises there, in the past early in the morning the people used to hunt and learn.'

Q: I have been coming here since 2001 and I see that more young women are getting pregnant, in your opinion why is that more youth are becoming young mothers?

'The biggest problem is starting families, people are not getting educated properly and they do not follow instructions, they just fall in love with anybody

and not use condoms, the women say to the young males that putting on a condom is a waste of time.' !Xun respondent member of the community.

Q: What can be done to make young people aware that falling pregnant at an early age can destroy their future?

A: If the police are in this it will be okay, if the men take advantage of the children they should be arrested.

Q: At what age should the !Xun children be ready for marriage and bearing children and how was it in the olden days?

A: In the olden days the old women used to say that at the age of 20 one could get married, but nowadays they just get married at the age of 16 and so on

The significant observation from the answers above is that young people get married before they are of age and thus cannot provide the necessary social contract. Those who give birth outside marriage find it hard to get into the marriage contract or continue to go to school. The negative role of this act is that the young mothers cease from looking at their parents for advice after giving birth or getting married early. Men also contribute negatively by not adhering to safe sex and not waiting for the right age to get married. The youth do not wait for the right time to give child to their partners. Married people are supposed to provide for their families through engagement in different activities within and outside the community. The

occupational and income level of members of the study community becomes significant at this stage.

3.4. Occupational Status

A study on occupational status and income levels of respondent community was important because the study wanted to investigate the impact of westernisation on the indigenous survival basis of these study communities. Table 3.4 shows the percentage distribution of occupational status of the respondent community members in the two study communities.

Table 3.4. Percentage Distribution of Occupational Status of Respondent Community Members

Total number of respondents !Xun (Males n=38 Females n=31) and Khwe (Males n=27 Females n=23)

Occupation	!Xun Males	!Xun Females	Khwe Males	Khwe Females
Com-Worker*	5	6	7	8
Farm Worker	7	1	10	2
Self-Employment**	25	26	22	25
Unemployed	58	61	52	62
Others***	5	6	9	3
Total	**100**	**100**	**100**	**100**

*Community worker

**Self-Employment - Employment includes making and selling artefacts

***Others include reserve military/security or volunteer

Table 3.4 shows that the majority of the respondents both female and male in both communities were either unemployed or depended on self-employment. The latter include different forms of activities base on new skills acquired in the new settlement or indigenous skills, especially among the elders, which were developed in their places of origin in Angola and Namibia. These include making and selling hunting tools, ornaments and artefacts made by members of the community. However, the majority (more than 50%) of respondents, both male and female, in the study communities were unemployed. They depended on social welfare for survival including remittances from members of the family who were employed outside the study communities. The implication of this is that the indigenous knowledge bases of survival were destroyed in terms of survival in the new environment. Table 3.5 shows the percentage distribution of the income levels of the respondent community members.

Income Level

Table 3.5. Percentage Distribution of Monthly Income (in Rands) of the Respondent Community Members

Total number of respondents !Xun (Males n=38 Females n=31) Khwe (Males n=27 Females n=23)

Income per Month	!Xun Males	!Xun Females	Khwe Males	Khwe Females
Less than R 500	74	84	67	74
R 500-R 1000	5	16	18	26
R1000- R 2000	11	0	11	0
R2000- R3000	10	0	4	0
R 3000 and more	0	0	0	0
Total	100	100	100	100

Table 3.5 shows that the majority (more than 70%) the respondents (female and male) in both study communities, had a monthly income of less than R500. The implication of these figures from an IKS perspective is that the destruction of the indigenous knowledge base of the !Xun and Khwe communities by westernization contributed greatly to their current state of poverty. The available amount of household income is not sufficient enough to sustain a household for a month. This takes into consideration that the average size of a household in these communities was six (6) people.

There are challenges that the community members are faced with after being settled in modern houses and in an environment that is hostile not only to them as a people but

that which they can not depend on for natural resources base. Respondent members of the community had these to say about the survival and modern money economy, which they are subjected to live.

'We should sell our traditional weapons to the people, ornaments and get money' !Xun male respondent who make bows and arrows and sell them to earn an income which he says he uses for :

'I sometimes buy cloths but food is what is important. I need some to go to those who bought me beer. They want me to buy I buy. We drink happily because we worked we sold arrows and bows. It is not every day you sell. Ja! This money is important for the family too'.

'I get old age money. When you get it you owe the shop almost all that money. It is little to buy anything ... only food.' Khwe female community member.

'*Children want food and clothes. the money is not enough. We use our traditional food and ways to sustain the family'*. !Xun male community member.

'We buy everything nowadays. We are living in times where without money it is hard to live. In Namibia we had the veld from which we got many things we cannot get those things without having to buy.' !Xun female respondent.

People still use traditional survival practices including food security to augment their incomes from outside sources. The income received is mostly for elders who live with members of the family and their grand children. Demands for purchase of utensils and other utilities have increased tremendously with the availability of electricity and modern houses.

3.6 Conclusion

This chapter examined the socio-economic and demographic characteristic of the study communities and implication for the study problem: western and indigenous African communities' perspective. From the examination of the results the following observations were made: Although age is not chronologically viewed by most of the respondent members of the communities those who provided chronological age used historical event from the community to determine their age. Majority is not sure and exact about their age. Age within indigenous communities is seen within the 'holistic person'. Birth is not date bound in study community and it was revealed in many ways other than the birth certificate.

Education is a necessity that most members of the respondent community value. Education is viewed as a vehicle for social mobility and a means to achieve economic gains through employment. The chapter also looked at indigenous language and cognitive issues wherein language. Language is viewed as essential in controlling ideas, identity and perceptions about worldviews. Respondents' members of the community indicated that it becomes impossible for them to direct their future without controlling their language. The other subject that was looked into is marriage. Role of married people have changed over the years among the !Xun and Khwe communities wherein social expectations of married people have adopted modernity with traditional values and norms still observed. Married men are no more expected to hunt but to get active in a wage economy.

CHAPTER FOUR

COMMUNITY PRODUCTION AND SUSTAINABLE NATURAL RESOURCE UTILIZATION: CRITICAL ANALYSIS OF KNOWLEDGE SYSTEMS

'They have taken our land, our mineral resources and forests, our language, our laws and religion and our systems of governance and leadership. And then they blame us that we do not develop in accordance with their criteria. ' an Indigenous leader at a UN conference

4.0 Introduction

This chapter discusses two indigenous communities whose indigenous resource base has been disrupted, and are now alienated from their indigenous survival resource base for survival. The !Xun and Khwe are currently experiencing alienation from the land which for many years was the provider of their livelihoods. With the removal from Namibia to South Africa a lot of them found themselves disoriented as San people who had relationship with the land for their sustainable livelihoods.

This chapter examines the following major issues with regard to the !Xun and Khwe. First, to demystify the notion held by western scholars that Africans could not produce anything of value and did not know how to sustainably use their natural resources. A distinction was made between savage and civilised, magic and scientific. The former was the African and latter was European. According to the

Western paradigm Africans were considered to be not scientific and have no sustainable relationship to natural resources (Smith, 1999)..

Second, to analyse critically the problem associated with the alienation of the study communities from their natural resources base for survival.

4.1 Sustainable Natural Resource Utilization

The study argues that sustainable use of natural resources both plants and animals still constitute the central resource base for the survival of the !Xun and Khwe. Existing biodiversity provided them with supply of food, medicinal plants and clothing and other basic needs. The preservation of the natural resources was an important aspect of their lives. Since these natural resources were affordable and easily accessible to these local communities, they had to be sustainably utilized for the survival of the existing communities and future generations. This sustainability was for survival and not for profit making. The local knowledge systems corresponded to the challenges of the environment and time changes. This is contrary to western perceptions that African communities had no sense of time. Africans had a conscious sense of time because they lived in a hostile natural and physical environment (Heverkort et al, 2002).

The following narrative from a Khwe member of the study community testifies their sensitivity to the environmental changes with respect to sustainable use of the natural resources:

'I think the situation wouldn't be different. Plaatfontein is about 13000 hectares in size, in Schimdtsdrift people were not allowed to hunt but they could use the plants in a small scale then they have also adapted there because they came originally from Angola and Namibia and I think the first year has given them a chance to adapt to the environment and identify what plants should be eaten and those for medicinal purposes and they do hunt but not very legally because they have no space left for hunting so individuals could hunt.'

From this response one learns about the !Xun and Khwe's frustrations caused by the limitations of their movement. As traditional nomadic tribes they have difficulty in understanding the restrictions as articulated by Salvador a !Xun community member :

'When God created all species he put them there for a reason. They should live together. It is not for man to destroy the environment and think that things will be just as he wants. Man changes the environment to suit him not for him to suit into the environment. That is the problem.'

The !Xun respondent highlights the interdependence of all the species on earth. Man does not want to fit himself into the environment. He wants to control it, and everything that happens in it. When man destroys this environment through industrialization, the indigenous nomadic tribes, such as !Xun and Khwelike the study communities, suffer because they have a strong relationship with the veldt. Salvador Batista furthermore expressed his understanding of the !Xun world view with regard to the environment :

'.....The knowledge of the San about the toxicity of plants and the danger of animal lies in the knowledge that my people accumulated over many years of apprentice with elders in the bush. The San people studied the land and have knowledge as to how to survive in hard conditions. There is no way that somebody could be best at the San culture other than the San themselves'.

The vast traditional knowledge about toxic plants, the land and the survival skills in the harsh weather conditions, accumulated over many years could not be handed to the young generation in the new environment. This valuable knowledge is not applicable in the new settlement.

This statement is in agreement with Gilkey (1993) arguing that nature now appears as one dimension, and hence nature is for us reduced from source and ground of our being to a level below us, means to a system of objects to be examined, manipulated and used, to a warehouse for goods needed by us. With the advent of science and its offspring, modern scientific technology, however this knowledge and this use of power increased immeasurably. The signs that nature becomes and is secular as much as we are, is being ignored in the rush to appreciate and enjoy the benefits of nature.

Furthermore, Salvador indicated that the San people had the extraordinary knowledge needed today by the world for the sustainable livelihoods. He referred to the Hoodia plant which is currently researched. He is optimistic about the changes faced by the !Xun and Khwe communities.

'I don't think the change does not give us space to do so, because one practices what he or she sees. Now that the people have got the knowledge on

how to hunt and to gather natural food in the veldt, they are no more practicing it, the skills are in danger of dying out because they are no longer practiced. Whenever you see a hunter then when ever he or she wants to hunt, it is in other individual's land which is illegal and they can be caught and it will be a problem. The only way we can preserve our skills is by having a history project where we can record the knowledge and put it into books although children of today will learn in a different way from those who learnt by going with their parents to the veld to hunt and gather food.'

There are sustainable ways that were practiced by the San in the past one is an example by Oana Djami (2002) :

'Guni hunting and gathering is whereby the Khwe community hunted a long way from the old camp and stayed away several days in the new camp and then went back to the old camp. During this hunt the whole community left the old camp'

Production of artifacts can bring income into the community as in the case with a member of the community who sell such artifacts through the Rock Art Centre. One of the beneficiaries from the !Xun community said:

'We should sell our traditional weapons to the people, ornaments and we should dance on special days for a salary.'

The women cannot engage in financially viable activities like men do. This is captured clearly in what the member of the Khwe community said below:

'This present life I do not understand very well. The place where we used to gather fruit and veldfood are no longer like it was in Namibia or Angola. We cannot move freely to gather food because of the fences.'

A different view is held by the leader of the Khwe, Mr Kamama :

'The culture that we had in the olden days has not changed much, in Angola we were involved in the wars and in Namibia it was the same. When we came to South Africa in 1990 we came with the same culture and belief system so we have not changed.

This is supported by the other respondent from the !Xun community:

'In the past there were important parts of the land before people came to make laws and now the land is here but we cannot move around anymore because there are restrictions. We as the San own the land nobody owned the land.

This is an important statement on land ownership and freedom of movement that the San used to enjoy. The restricting laws that were later made affected the San greatly in that they can no longer freely hunt or move about the land.

'I am just a person who lived a happy life in the past with gathering veldfood. I was hunting but never destroyed the wildlife in the past. As a hunter I was taught to take care of my animals, the one I hunted because they would reproduce for the next family and food was gathered unselfishly. You see the white person with his gun is the cause of lot of San and the animals' problem. Why did they come with gun to destroy our resource and change our life to be so difficult nowadays?

In the past I used bow and arrow for hunting. This was very good because the animals did not run away from us, like they do now since the white person brought guns and horse. A Khwe community member.

There are many conflicting expressions about the new land at Schmidtsdrift and Plaatfontein. Elders from both the communities felt that the removal has cost them their knowledge about self-sustenance and sustainable livelihoods based on natural resource base. Others support the new settlement at Plaatfontein.

An interview with Peter Goro (2002) supports the statements of the South African San: '*In the past the Khwe community was known as hunters and gatherers. They used to hunt wildlife and gather up wild food, for example they collected dini (honey), tcinde (another type of honey) and gathered some wild fruits like umbe, kyarace fruit and other foodstuffs.*'

One youth member of the Khwe added : *'I believe that we must know the ways of the old people because they were wise and we must know our culture because it is the one that gives us life'.*

An interview with one traditional healers, Ms Fly Sobongo, in the !Xun community revealed the following:

> '*I don't think my answer is 100% correct, in the past the healers used to heal people, today things are about money because you go to town to see a doctor and pay but the traditional healers do not make one pay, I think the healers will die out because people see western doctors in town since they see no*

reason to go to traditional doctors anymore It will be difficult in the future for doctors to get medicine, because they took their time to gather the herbs. Now the distance is short and if they go into white farms they might get shot. There are problems in the future for the doctors; they will lose their power because they want darkness to be free. In the past people could not sleep because of the light. The power of electricity is like that of our shamans.'

'Youngsters have knowledge that their bushman lifestyle is good and those who follow the western culture do not want the bushman culture but when they are lost they will come back and try to be bushman, it is better if it is balanced, they can become coloureds or Griquas, but what is coloured, that is not a nation, it is nothing because you are not combining a nation, you are just colours and not a nation. !Xun medicine women observed.'

Furthermore, contrary to the Western perception, the San people were not a homogenous community. They belong to different ethnic groups with different cultural values, languages and perception towards the outside world. These differences can be recognised when observing the !Xun and Khwe historiography and cultures. It is on the basis of these differences that the community production, natural resources uses and related knowledge will be observed and analysed.

Knowledge production and dissemination determine knowledge utilisation. Differences are at the level of interpretation where locally produced knowledge seems to be denied. During the anti-colonial struggle in a number of African countries,

knowledge was appropriated whilst knowledge produced in those states that were not colonised remained authentic to local interests.

For example the San communities have survived under harsh natural and physical environment in the Kalahari Desert. Living in dry lands and semi-dry lands have made adaptation to these conditions, sharpened their senses and skills for the provision of basic needs and general survival.

As part of their countries of residence, which are South Africa and Botswana, these communities could not escape the effects of western influence. For instance, in the nomadic life the !Xun and Khwe were in contact with other communities and including state organisations such as the South African Defence Forces that solicited their help in their wars against liberation movements in Angola. These San communities are still battling with post-war trauma they suffered in their different capacities. The women suffered greatly as their husbands went to war and stopped providing for them, let alone in fulfilling their conjugal expectations. Husbands and men in general had to join the battle front; some never came back and those who did had now adopted a new life-style that is influenced by the culture of the military.

4.2 Conceptualization of basic needs: the impact of westernization among !Xun and Khwe communities.

The study was first interested in establishing what the !Xun and Khwe understood by Basic needs of life. The following responses reflected the different realities in which the community members lived.

A !Xun community member had the following to say:

> *' What I think are basic needs is the good working conditions, playfields for children, now we have water and electricity, we need a hospital, police stations, taxis and a rank. We also need offices for the leaders of the !Xun and Khwe. '*

The !Xun community could survive without electricity, the hospital, the police stations, the taxis and the taxi rank in the past. Although this would be viewed as some kind of development we should bear in mind that such a kind of a westernized life is too foreign to them. Water is natural resources that they did not buy, traditional medicinal doctors could take care of the sick and bring back life without them paying any money.

A Khwe community member stated the following to testify the realities of the new environment in South Africa, which is different from the one they experienced before in Namibia, Angola.

> *'The life of the Khwe is about money now and not hunting and gathering to feed the children because people want to send their children to school and now we have to work for money in South Africa. '*

Westernization has now made money a priority in the life of the Khwe and the !Xun communities. Hunting and the gathering of food has taken the back seat. One cannot help but ask oneself a question about the skills that these communities need to be employed in South Africa. An industrious man who would go in the veld to carry out

his fatherly expectations is rendered lazy and useless by the western life which expects him to be employed.

Whereas, an elderly Khwe Tanaxu Khoakx'oxo expressed his nostalgic longing for his indigenous community and indigenous environment:

> *'Everything was cheap for us, unlike today. If you were hunting you could find animals anywhere because we respected the law of hunting in the bush. Today none of us would be lucky even if we could still hunt, because today's people do not respect our tradition or our culture as in the past. It is not good if you do not respect your own culture, but you respect other people's cultures. Even for God it is not good, and if you lose respect for the culture God has given you, God will no longer give you what you want in life.'*

This was supported by one !Xun respondent who added the following :

> *'We were taught how to hunt by our parents. They would take us along and teach us the tracks of animals and how to track them. We hunted but never, never damaged the wildlife. In the past we took care of the animals because we knew that they would reproduce for the next generation.'*

From the comment of Tanaxu Khoakx'oxo and the !Xun respondent one learn that hunting was governed by particular traditional laws. Hunting then, commanded some knowledge and skills that hunters had to adhere to in the hunting expectation. We also found out that gather that the animals that provided food for the community were respected. These animals were respected in the sense that when their mating season came they were not killed. Respecting these animals during certain periods ensured reproduction abd conservation for future generations. With Westernization the law of hunting, the knowledge about these animals and their habits would diminish. The knowledge that was passed down form father to son, and from mother to daughter in a

traditional manner would be lost forever. The young generation of the !Xun and the Khwe would grow up without the fundamental knowledge and skills that separate the !Xun and the Khwe children from the other nations.

Kamama like all the respondents from the study communities highlighted the fact that men in these communities were food providers. Men also had knowledge of wild food. They also knew the techniques of killing the wild animals by using the bow and the arrow. What is striking in Kamama's comment is the difference in the methods of killing the animal that is used by the Westerners and the one used by the study communities. The study communities used silent killing that caused no noise. Again here, one gets a sense of respect for the animal. The animal should die silently without affecting the other animals. The animals should not see the people who kill them. This underlines the respect the study communities have for wildlife. The animals provide food for them and their families so they respect them. They want to maintain their relationship with the wildlife but Westernization with its noisy gunshots has made the animals fear human beings.

Mr Kamama, a Khwe respondent community explains further how hunting was part of the community's livelihood :

> *'The Khwe community was known as hunters and gatherers. The men did the hunting. They used to hunt wildlife and at times gather wild food. In the olden days we did not use the guns like what is happening now. The animals run away from the gunshot sound. But in the past, we used bows and arrows. Our fathers told us that it was the best way of killing wildlife. We had great respect*

for the animals we killed. The method of bows and arrows is a silence killing because the other animals should not see one of their own falling to the ground and die. They should not even know that people were killing them. But today I see the animals run away from the people. Why ? Because of the gunshots.'

The killing of wildlife in a noisy, merciless way has affected the quiet manner of killing that Kamama and many others in the study community were taught by their parents.

4.3. Comparative Community Attitudes Towards Current Environmental Conditions

Both natural resource production and consumption among indigenous communities, including the !Xun and Khwe, were a matter of survival and sustainability and never profit driven. Access to these resources resulted in indigenous communities developing mechanisms to sustain their environment. Natural environmental conditions have changed over the years, the worst being the removal of people from their natural indigenous environment to adapt to new harsh conditions. The study looked at the attitudes that developed over the years among members of the !Xun and Khwe towards the changing environment. This includes and their perception towards utilization of natural resources and basic needs. Due to the changes in life-styles and natural resource utilization the very concept 'basic needs' shifted and is viewed differently by the two communities.

Respondent community members in both study communities expressed their frustrations with the current western influenced local environment. Their current places of residence, which are Schmidtsdrift and Plaatfontein, differ tremendously from their indigenous communities where they come from in Angola and Namibia. They expressed their feeling and lamented as follows:

'We do not know this place';

'We *cannot plant anything on this stony and thorny land'*;

'*This place is full of wind and dust. The small gardens cannot produce anything of substance to feed the owner.'*

The comment expresses nostalgia of their life in Angola and Namibia where they had fertile land in which they could cultivate food. The thorny land in their present location is full of stones.

A contrast is expressed by a !Xun member about the new resettlement at Plaatfontein. The comment is prompt by the lived experience in Schmidtsdrift as opposed to Namibia and Angola. The respondent has spent sufficient time in Schmidtsdrift in order to have knowledge about its conditions. She however expresses comfort with Platfontein :

'It is better here at Plaatfontein. The soil is good as you can see we can now plant vegetable, mealies and other plants that are needed for food. The rain is also good and we have water just over here (pointing at the water tap), inside our yards. It is not like Schmidtsdrift very, very dry and windy. We were going to die there. But here it is really better. Even the children... You see they play well. The ground is not full of stones.'

The expression by this !Xun community member indicates the confusion that is brought by Westernization in the lives of these communities. It is only human that contradictory information like that stated in the above paragraphs would prevail. This also indicates the problem of adaptation in new environments that affects individuals differently. There are those who would battle to settle in the new settlement and would forever remain nostalgic about the places in Angola and Namibia from which they from. While others would welcome the new western changes and force themselves to adapt because the situation in which they find themselves cannot be reversed.

The !Xun respondent had this to say about the life in the new settlements at Plaatfontien near Kimberly.

> *'Initially we said to the government that we must go closer to Kimberly because of the jobs. We are not all happy because of the crime and the community is not used to this big community with one tap and the same house but some people are not used to that. The youngsters use the tap water and electricity and the elders prefer to make a fire outside and this is dangerous because the smoke might kill people. People also do not know the value of money and shop-owners might rob them. People do not know the price because the old people have not gone to school'.*

This captures the contradiction of living in the new environment. The changes affect both young and old differently, though. The money economy and demands by western life-styles put pressure on the elders to spend their money on other things than food.

On the other hand the new area is seen as better in terms of its natural environment but the infrastructure for housing and ablution blocks.

Supported by a !Xun male respondent member of the community:

> *'Some members of the community are not happy with the houses and the toilets provided for by government. You see these toilets have a plastic bag which after it's full should be disposed of in the back yard. We should dig a small hole and bury all the waste there. This is not good at all . When we were still at Sundown (*the term used by young and old to refer to Schmidtsdrift*) the leadership never called us to view the plans of the houses to be built. Most people saw for the first time the houses when they moved to the new land- Plaatfontein. There was no broad consultation with the community. So that is why we cannot use these toilets. They look very strange inside with the plastic bag and can cause one person to be sick''.*

From the narratives above it is evident that there is no consensus on statements which are commonly held by the different members of the two communities. Each person has his/her own understanding of the new environment. There are different views held by members of the two indigenous communities about what basic needs meant. These are reflected in the narratives below.

> !Xun community member: *"I think the basic needs are water and housing for me".*

!Xun community member: *"The things we need are jobs, money to buy food and medicine'.*

Khwe community member : *"From the veld we need the animals for hunting and the medicine. Here now we need money to buy electricity and food.'*

!Xun community member '*Education for the children and where they can play sports.'.*

Khwe community member: '*More pension money for the old people.*'

' Khwe community member: '*We need land for hunting and fetching wood for sculpture.*

' !Xun community member : '*Water and good houses, not these RDP ones, they are weak, blown by the wind very easily.*

!Xun member. *'Jobs and taxis to get to town.'*

These conflicting views held by members of the study communities though seldom heard about are common practice nowadays . Because these communities are alienated from the land that most of them knew so well. There are currently teething problems with regards to the new settlement. Otherwise the access and use of natural resource is experiencing serious challenges.

4.4 Problems encountered by local communities in the use of indigenous natural resources.

Every community has forms of survival, expertise in a particular environment including knowledge and technological systems. The study found that changes in environmental conditions of life due to movement by !Xun and Khwe from their indigenous communities in Angola and Namibia affected the survival bases of the study communities. Interviews with community leaders showed that: -they were also concerned about the lack of natural resources and the deterioration of skills that used to provide for the community. A lot of skills were lost over the years since they were removed from Namibia to Schmidtsdrift in South Africa.

Respondent members of both the !Xun and Khwe communities are experiencing problems and difficulties when it comes to the production and accessing basic needs. The problems have now increased in that the communities are now alienated and isolated from accessing natural resources and now have to face problems of an industrialized and commercialised life-style where money is the essence for survival. The new environment provides new forms of problems coupled with the alienation from the indigenous environment.

Elders who are used to gather wild fruit and other natural resources from the veldt cannot do so any more. The area where they are resettled has restricted the movement of the community members. They are not allowed to travel into other parts of the camp where there are sufficient natural resources.

Knowledge about the veldt and its related natural resources is faced with deterioration and disappearance in the near future because both the young and the old do not put it in use alike. This is experienced mostly by women in the !Xun community who appear committed to continue with most of the traditional practices even in the face of modernisation.

Linked to production of basic needs from both inside the community and from exogenous is the utilization of skills and knowledge about these resources. Because the !Xun and Khwe are skilled with knowledge about the veld. The under utilization of such skills ,since the late eighties, has resulted in the new generation of the members of the two communities to be ignorant of such knowledge and its implications.

Contrary to their knowledge and skills based on the environment in Angola and Namibia, the elders had a different notion about the environment in Schmidtsdrifdt and Plaatfontein. They did not have sufficient knowledge about the plants including the medicinal plants. They had to travel to other places in search of both traditional and western medicinal assistance. This is caused by the fact that there are few medicine men and women in the community. They depended on outsiders for their health needs. The well known San dance normally used for healing is not of great assistance anymore because there are no healers and medicines to accompany the ritual. The dance has turned into just another pastime performance. Below is the description of the dance and how it used to be observed in relation to the environment:

'The healing dance is held as often as four times a month and is a marathon lasting from dusk till dawn. In this ancient ceremony the men dance around a group of women, who dance in turn in a circle round a fire clapping and rhythmically calling out. As the night precedes, 'num'- a powerful spiritual, healing energy emanating from the gods- is activated in the participants, who experience enhanced consciousness. The healing power is thus released to the community, to everyone's benefit. Stated a !Xun respondent member of the community

The dance was part of the hunters blessing before the expedition could be undertaken. Informants said that any long expedition required the medicine man to prepare the hunters. If they go for a big hunt they should be given the necessary medication. Animals are very dangerous so in order to protect the life of the hunter a medicine man was consulted to predict the expedition. Therefore the dwindling of the dance might have followed the fact that the respondent community is no more involved in game hunting. The dance was mainly used for accessing the natural resources much needed by members of the community especially hunting certain animals. It provided both healing, unity, and charm for expeditions. This demonstrates that there was an interlinked-system in place wherein the ritual of the dance was linked to healing and to hunting expeditions.

A respondent from the !Xun community confirmed this by saying:

'The !Xun to which I belong have memory about many things. They have know-how about hunting, animal behaviour, gathering of wild-veld fruit and many animals tamed or wild. The hunting was done with the help of the

traditional healers, who would inform the hunters about the forecast of the day of hunting. This was done because as the hunter enters the bush to begin to hunt he too might be hunted as well. Tradition demands that the hunting season be blessed by the charm of the traditional healer.'

The elders are longing for their past life in the veldt. Traditional dancing of the Khwe and !Xun has left an open space, a spiritual vacuum that cannot be replaced by any other dance. The dance was particular with its link to the healing energy form the gods.

One respondent member of the Khwe posited that:

'There were two types of Khwe traditional dance that we all knew as children and growing up in Angola. I forgot their names. Just let me think...e ee. The yew/i dance and /ana dancing. We used to dance them differently because the /ana dance we would do that standing. The yew/i dance we did sitting down.

A Khwe community elderly person stated : *'We are no more wearing our traditional dress. Not any more but sometimes we do but not all women have the dress. Things have changed much for us in the past. Even when we were in Namibia we got clothes from people. They came to our settlement and sold us clothes, not our traditional dress- no'..*

Both study communities are nostalgic about their indigenous dances. The indigenous dances were done wearing their traditional dresses, which are also disappearing. The !Xun and the Khwe as it has been illustrated in Chapter Three earn about R500-00 per

household. The new life, western life, demands them to buy clothing from the little money they have.

Most of what the !Xun and Khwe regard as good knowledge in order to produce what one needs within the community is linked to the love for one's culture, the respect for elders is mostly emphasized and sharing with the community. Skills are not reduced to what one can only do with one's hands but the humanity and respect for the environment is also a skill that should be promoted and shared with the respective members of the community. So the skills that measure productivity in the community are not seen in the same way that the West would.

One informant said that: '*only the very skilled people became headmen, and the other skilled hunters became the supporters of the headman. When he died, the son inherited the position as his father had taught him. The skilled person was well taken care of in the community'.*

With all the memories and skills that are possessed by the community members the current environment has no opportunities for practicing such a legacy. The narratives of the leaders attest this from the study communities.

> *"Even if we wanted to hunt, there is no land. The land that we have now though bigger than Schmidtsdrift does not have the animals. No plants to be eaten.'* Khwe member.

Responding to the question about access to traditional medicine, the traditional healer from the !Xun said:

'You must search which medicine is for what and if it is found in the environment and sometimes you do something wrong in the face of God by giving a person a medicine that you are trying to test. Some people go to the western doctors because they have communication problems with their ancestors, they are given medicine but they still come back because they do not know the real problem.'

The frustration and alienation faced by the members of the two communities is more serious than it sounds. The people are not yet familiar with the new environment. They however, have great memory and understanding including knowledge about Namibia and Angola. The young people do no seem to have great and exciting memories with their indigenous lands in Namibia and Angola. The problems with regard to access to natural resource is illuminated by this Khwe community member when she said:

'We do not know this place. We all look at each other without answers when we get sick. When we get hungry.... In the past we went to fetch veld food and our doctors got medicine from the same veld. We have to buy everything now.'

Sickness and hunger bring misery to the study communities. Their problems are aggravated by the fact that they do not have money to consult western doctors while their traditional healers are still studying the new medicines found in the new environment. They also suffer from hunger, because of the lack of money to buy food and they cannot get veld food in this new place.

'We have sold the cattle that we bought at Plaatfontein so that we can buy wildlife. You see cattle give lot of work and die out easily. They need us to give

them care not like the wild animals they live. just like Bushman get healed by the veld. So in future we will hunt animals from the camp.'

This response also underlines the common factor between the wild animals and the Bushmen that is that both are dependent on the veldt. They get food from the veldt and they also get healing from the wild plants from the veld. All these will die out like it never existed.

There are those skills used in the advancement of technology in its different forms. In the past the !Xun and Khwe community had various skills used in the making of clothes from animal hide. These include sewing the threads that softens the hide.

'We got our sewing threads form the backbone of the ***wanda*** *(springhare) and made it from the long sinews that were white in colour. This was the sewing thread for making leather clothes of the Khwe community. Threads made from* ***wanda*** *were similar to artificial threads made for sewing today. Older men taught young ones to sew leather blankets, clothes, bags and leather shoe* (//avo), kyeu and ku *(man's clothes)'.*

'The hides were made soft by applying animal fat, and then putting it in the sun so that,the fat could seep into the hide. Later on the hide was softened with sticks supporting it on the ground. After the hide was dry, hair was then removed. The roots of tcere (silver terminalia) trees were used to change the colour of the hide. This was done by rubbing the roots into the hide. Then other things can be made out of the leather.'

Unfortunately due to alienation and removal from the indigenous land, the knowledge and skills associated with technological production based on material from natural resources cannot be sustainably produced.

A number of respondents from !Xun and Khwe community members referred to different animal skins being used for making shoes. The problem is that these can no longer be accessed by those involved with the skill and trade. Those include n/gu (gemsbok), /ao (buffalo), du (eland) and ngyave (Giraffe). Both !Xun and Khwe communities also used many plants material from the natural environment to extract powder and lotions. The tree that the Khwe respondent member remembers very well is the /garo-nguyi (weeping wattle) which together with n/gao were used to provide women with an odd smell which is recorded to have been a nice smell.

With regards to natural resources accessed by the respondents' community members of both !Xun and Khwe, the young people indicated the following :

Member of Khwe community said : *"I have no memory of Angola, I was too young. I cannot relate to that*".

!Xun community member recalled thus : "I *was told by my grand mother about the Bushman's life in Namibia. That they used to live very different from today's life. They never used money until the South African Defense Force employed their husbands.'*

Member of Khwe community said : *'I grew up at Schmidtsdrift and never enjoyed the veld life there it was hard life only. Here is little bit better for us young people we can go to town and have entertainment there."*

Otherwise elders do have sound memory of the different plants species used over the years for providing sustainable livelihoods as indicated in here.

The Khwe having lived for may years in southern Angola where they learnt about the indigenous plant species. Most of the respondent elders had memories about gathering plants and other veldt activities that gave them knowledge about the ecology and the environment.

The following plants were gathered by Khwe in the past:

1. T c'inya (chamaethamnus Mildbery)
2. /gom (Manketti tree)
3. Kyara (peeling bark ochna)
4. tceu (false mopane)
5. ce (grewia)
6. /x'oana (monkey orange)
7. du-/om (false brandy)
8. llgani (Kalahari sand raisin)
9. tc'oere (false wild mildlar)
10. do (makhungara or water lily)
11. tck'om, tcindjere (bird plum).

They wanted to pass this knowledge to the future generations so that it is not lost. The narrative below attests to the fact that the Khwe in the past had great knowledge about indigenous natural resources, both plants and animals for community survival.

According to !Xun respondent community members, Salvador Badista, women are known to have gathered food in the past. When they wanted to gather wild food, they used to take a stick with them for digging up the wild food and after collecting it they would cook the food. The men just helped the women by climbing trees to pick and bring the ripe fruit down to the ground, so that it could be collected easily.

A group focus interview with the elders in the Khwe community had the following to say about what they regard as indigenous ways of engaging the natural environment. Such ways are no more applicable in the community.

> *'There were so many plant resources that we gathered in the past, and here are the names of the plant food that we gathered. They are for example tceu, and this food was used as a mixture for any type of food. Tseu was used to mix with edible leaves and its colour is red like tomato sauce of today. Tseu was also used in mixing with meat and lealie meal porridge. In the past we used to eat tseu with animal skin.'*
>
> *'There was also another type of food gathered called /gom . /gom was eaten with animal meat and animal skin cooked together, and these two types of plant resources were very important to the Khwe people in the past. And even if the animal is not fat enough you can add tseu or /gom and the taste of the meat will be palatable. In the past we were not like the tribes we were like the whites, we made oil form kyara tree and boiled it purified like the whites do. These food were very nice to be eaten.'*(Interview with Moronga Ntemang, A Khwe. Translations done by Kotsi Mmaba).

There was food stuff that could last for a long time after collected from the veld. For example *umbe* (Kalahari potberry) was regarded as the best food type, because if gathered this year, it would last for two years. This is how long it could be kept and eaten. As indicated in the narrative below, the knowledge about the plants and their utilization was very good in the past.

Beer which was a great luxury for both men and women was made out of honey. Beer making is a knowledgeable practice among elders.

> *'We, Khwe made our traditional beer from honey that was separated from the bees' wax. The honey was called thovo in the Khwe language and dini-caca was beer from honey. There were different ways of making the beer known to women and it was sometimes made very strong. The Khwe youth were not allowed to drink it, only adult men and a few Khwe ladies were allowed to drink this type of beer in the past; it was like wine. Beer could also be made from tree fruits called x'aro (buffalo thorn) and /gom. How the this beer was made: first the x'aro and /gom were boiled ,then covered and allowed to cool without filtration. This type of beer became very strong soon, and very soon was drinkable, like wine- it tasted. This is now only memories of the generous life we lived.'*

It is from the narrative above that the Khwe community was sustainable and provided for its people what they needed over time. They could sustain their different ways of producing requirement for their sustenance without destroying the environment. This is otherwise known as both food security and sustainable living. The beer was not costing any monetary terms and people could get it made from the natural resources

readily available to the members of the community. The unfortunate part is that today people both young and adults purchase the liquor from the stores. It affects the traditional ways of drinking.

'There was another plant that we used to gather in the past, and its name was naxani (mobola plum) . Naxani was also important to the Khwe people and it was very nice and sweet tasting. Naxani was baked like groundnuts. These nuts were known as ***cu****(nut).The outer part of the nut is edible and the inner part is called* ***kuu*** *and this is also edible. When we had baked the nuts, we stamped the nuts of* ***kuu****, and these nuts were like our traditional chocolate which was nice to eat. When we finish stamping the nuts, we rolled it in the size of ones arm and we could store it for future use. It was dried in the sun, and then we could break pieces off with an axe to boil it to become soft to eat. This is the food that gave us fat on our bodies in the past. When you see a Khwe person and he looks very fat, then know it is this food that provided the fat.'*

Respondent member of the Khwe community had this to say about the challenges faced by the community in the new settlement:

'I think the situation wouldn't be different. Plaatfontein is about 13000 hectares in size, in Schimdtsdrift people were not allowed to hunt but they could use the plants in a small scale then they have also adapted there because they came originally from Angola and Namibia and I think the first year has given them a chance to adapt to the environment and identify what

plants should be eaten and those for medicinal purposes and they do hunt but not very legally because they have no space left for hunting so individuals could hunt.'

Contrasting opinions are now popular amongst the disillusioned and alienated adults and youth members of the two communities. Mr Tomson Nore, one of the influential members of the Khwe community, echoes this.

'I don't think the change does not give us space to do so, because one practices what he or she sees. Now that the people have got the knowledge on how to hunt and to gather natural food in the veldt, they are no more practicing it; the skills are in danger of dying out because they are no longer practiced. Whenever you see a hunter then whenever he or she wants to hunt, it is in other individuals' land that is illegal and they can be caught and it will be a problem. The only way we can preserve our skills is by having a history project where we can record the knowledge and put it into books although children of today will learn in a different way from those who learnt by going with their parents to the veldt to hunt and gather food.'

Other than problems linked to the basic needs, skills and knowledge there are social problems that were expressed by !Xun respondent. These social problems have a negative impact on the future sustainability of the communities' cultural practices.

'When we were hunting, we did not have alcohol and abuse problems and now the people come here to make money from selling alcohol'.

This statement is a fulcrum of a number of social ills that befell the two indigenous communities. Previous researchers in the Kalahari and Namibia amongst the San people have reported about alcohol abuse. Unfortunately this study will not indulge in the matter other than to mention that alcohol abuse contributes negatively to the social stability and moral growth of the two communities and contributes negatively to sustain continuity of indigenous cultural practices linked with the utilization of the natural resources.

The knowledge about the natural resources is based on memory from the elders of the two communities. What can be observed from the respondent members of the community is that problems are experienced in that most are not educated in the western schools and thereby lack the necessary skills and knowledge needed in the modern world. The knowledge related to utilization of skills and production of basic needs are incompatible in that in order to be economically active in the utilization of modern skills a person needs to participate in the money economy. The lack of employment opportunities for the respondent members of the communities has a bearing on the potentiality of utilizing the skills and knowledge for production of modern basic needs such as tap water, electricity, and housing rental and maintenance. These basic needs are now sold to members of the communities.

> A respondent member of the !Xun community said : '*The youngsters use the tap and electricity and the elders prefer to make a fire outside and this is dangerous because the smoke might kill people*'

Elders from both the indigenous communities prefer to use the fire place for cooking even when they have electricity connected to their homes. The supply of this energy will also soon be out of supply since the forest is not big enough for supply of future fire energy. There are no income making opportunities that will result in wages being paid so that the members can purchase electricity and other equipment that utilize electricity. The other reason is that the elders feel more in control and safe when using the traditional ways of preparing food. Since fire has to be accessed for most part of the day for various reasons, the elders prefer to have the fireplace burning all the time.

'We use the fire outside because we do not have to pay for it. We can always get the wood form the forest.' Stated a !Xun female elder.

Comment by a traditional healer from the Khwe community stated that: *'They do not want us to bring the fire inside the house; they say it will burn the house. What is going to happen in winter? In Schmidtsdrifdt in the tents we could not bring fire too. This fire is important for us. It has always traveled with the Bushman. We are the people who make fire'.*

The result of these differences is not only based on ethnic grouping but are evident in both communities. It was necessary for this study to look into forms and ways that are used to maintain stability among different members of the communities.

4.5 Community's Approaches to Conflict Resolution

It is obvious that with such conflicting views over the utilization of natural resources by the different members of the !Xun and Khwe, conflict is possible. To avert conflict, the elders from both communities established structures and forms of resolving conflict among members of the two communities.

Since arriving at Schmidtsdrift the leadership of the !Xun and Khwe organised their communities into structures. Because the natural environment at the new place differs markedly from those in Namibia and Angola,ways were devised to assist community members to deal with different form of hardship, including physical such as climatic conditions: this is expressed in the following words by a community leader:

> *'This place is not made for human settlement. Sometimes it turns against us in all possible manners. It can be so windy and dusty that we hardly can eat or cook. There is dust everywhere and very windy, at times. Not like where we used to stay (Namibia).'*

In order to respond to the plight of the community, the community leaders called for the establishment of village committees.

The following Committees were established over time to address specific problems that the members we faced with. There are also the relevant institutions and structures that were consulted by the researcher throughout the research process.

- **Heritage**

This Committee is tasked with the function of coordinating all matters of the San with regards to their Heritage Rights. The emphasis is that the San are, like all other groups, entitled to respect of their heritage. The heritage rights of the San are seen as simply their rights to practice and protect their own culture, without hindrance or discrimination. These include rights in the areas of intellectual property rights, land and tradition, language; rock art and sacred heritage sites. The protection of indigenous knowledge such as plant use, is very valuable to Western pharmaceutical companies, that make millions from the patented products using the knowledge without paying the original owners of the knowledge.

- **Women's rights, Youth and Elderly Committees**

These communities are to safeguard that development in the community does include the participation and service of these sectors of the community.

- **Health**

This committee is charged with the responsibility of getting the health matters especially primary health care to the community. It is vital for the health life-styles of the community especially women.

- **WIMSA**

Working Group of Indigenous Minorities in Southern Africa(WIMSA) is an umbrella body (formed in 1996) and networking body to represent the collective rights of all San peoples at all levels internationally, nationally and locally.

- **School Control Body**

This committee works hand in hand with the ABET one to ensure that the school is run in the interest of the community. That all matters dealing with school administration are handled properly without obstructing teaching.

- **Radio station**

Responsibility for the running of the XK FM, a community radio station broadcasting in !Xun and Khwe languages. It is an important mouthpiece for the community and binds their consciousness of being indigenous. Riano Ndura, who is also fluent in English, Afrikaans and Khwe languages, indicated to me that since the inception of the radio there has been change in the social attitude of the community. He met important people and gives credit to SABC for the support it gives the station. About language and cultural development he says that the people enjoy the social commentary that talks about health culture and development programmes.

The other thing of significance that the radio has brought is recognition of the San's language by the government through PANSALB. Once language is broadcast it remains in the minds of the people, they talk and use it for communication. Hence important gatherings are immediately broadcasted to the public. They also get news from other parts of the world.

The station builds morale and understanding for the rights of the indigenous people. The station unites the different clans in the community though physically divided. Traditional life and modernity within the San culture is encouraged. In times of community ceremonies the station goes out to record folk stories, the stories and songs that the people perform. The station later plays the recording and this brings joy to the people when they hear themselves on radio.

Since the introduction of XK FM the life of the community has changed in terms of gaining knowledge about the outside world. This station is the pride of the community in that it promotes their languages, culture and tradition. It is policy that it broadcasts

largely in the indigenous languages. The Radio broadcast from the morning until three O'clock in the afternoon at that time different news formats would have been presented; local music and international arts are part of the daily presentation. The use of !Xun and Khwe; the broadcasting of San music and at times talk shows and magazine programmes are aimed at sharing contemporary information and current news with the community.

- **Resettlement committee**

  Mainly constituting the leadership of the two communities, it negotiated for the purchase the Plaatfontein farm and for the coordination of the resettlement programme supervised by National government.

At the top of all is the National Khoisan Council, the !Xun and Khwe Trust and WIMSA. The three are national bodies serving the interests of the Bushmen or San within South Africa and in the region.

The above structure/committee differs from the traditional leadership in that they are appointed by the different community interest groupings. The inclusion of traditional leadership in the modern democratic organs has compromised the position of the traditional leadership a lot. There are times when the significant ideas are negotiated by representatives of the project without the consensus of the community members.

> '*We need our traditional leadership to be respected. They are currently excluded because they do not understand English some times even Afrikaans.*' laments a member of the Khwe community.

Khwe youth adding his frustration with the leadership stated : *'I prefer the democratic structures because those people can talk to the outside world. What leader do you need who cannot speak the languages of other people? We should be part of the outside world too"*

'The leadership has misrepresented us when they chose these houses and the toilets. They did not consult with other committee members so that they can choose the right toilets for all of us.' a !Xun member commended.

A Khwe respondent member provided an alternative response: *'We have respect for the leadership. They worked very hard for us. They do not do it for the money. No! They did it for us the Bushman. We have suffered a lot in the past. But now the leaders are organised."*

Other than these committees there exist the traditional leadership and those elected by the two communities to represent their interests inside and outside the community. The traditional leadership is not as influential as in the past.

However it should be noted that there is a good genealogy of chiefs of the Khwe as narrated by Moronga Ntemang and Oana Djami in "The Khwe of the Okavanga Panhanhle: The Past Life" (2002):

'In the past, there were many chiefs living with us. Every chief used to live with his own community. Their law was that if they killed an animal, it had to be in their own place or land that did not belong to other people. It was the law of the chief that his community should only hunt in the land that belongs to him. Today living with other people, our life is not nice. ...because our chief is not recognized and in our village there are no clinics or government services like the other villages have. ' (Djami)

Ntamang provides an insight: *We are not being recognized and read about by people anymore, because after independence of the country we did not have any leadership in the cabinet or even house of traditional leadership thus we have lost our Khwe or San history.*

Another had this to say:

> *'We are having problems; the Bushman people are sad and are crying. They have problems coming their way. They see that the present life is not good. They do not have their own chiefs to represent them and solve their problems like other tribes.'*
>
> *'To develop our culture traditional healers should practice fully, traditional weapons and medicine must be available to help our community. We should work together with leaders to protect our culture and we can sell our artifacts and promote our culture and market it for the outside world to know about the !Xun and Khwe and that is how we should develop ourselves'*

Both !Xun and Khwe used to depend on the indigenous natural resources .However, a gap of experience exists between the generations that lived in Angola (both !Xun And Khwe) and those born at Schmidtsdrift. Sources of natural resources linked to memory cannot be utilized by both young generations. This threatens the future survival of knowledge which for many decades was regarded as part of the San identity, tradition and philosophy. The knowledge about plant material that was developed through trials over millions of years is facing a disappearance or irrelevancy in terms of place and time of the two communities. Such a threat is a

concern for the leadership of the two communities. Challenges for the future are enormous and insurmountable and needs to be met if the bio-cultural heritage of the San has to survive in the 21st century and thus provide solutions for future biotechnology, food and medicinal supply.

However, there is growing interest in the protection and practice of the knowledge about the biodiversity of the San. Such a challenge can be seen in the efforts of the leadership to mobilize the young people and the holders of this knowledge. Community production has changed tremendously in the past twenty years of the community's removals from Angola to Namibia then to South Africa. Patterns and technologies that were employed in the different natural environments resulted in new survival strategies that included western ways. Interaction with other communities including the Batswana, Afrikaners and Portuguese influenced the attitudes and perceptions of the research community. This is supported by Maruta Diyonga, she had this to say:

> *'When we met with the Mbukushu tribe, we started losing our lands, leadership, health, culture and our traditional life. After we met with other tribes we stopped moving around in the veld because the government stopped Khwe communities from living as they did in the past.'*

A number of factors played a role in influencing the deterioration of knowledge in the communities with regards to practicing their indigenous ways. There has been, for example among the !Xun a Christian influence to an extent that one of the leaders is a trained dominee. The first among the !Xun in Southern Africa. Acculturation and assimilation did take place among the !Xun and Khwe in a manner that made young people look forward to a modern life. With the new environments presenting

themselves through climatic change, political arrangements, and educational influence and generally outside influence brought by interaction with other people, the respondent communities face social change.

4.6 Conclusion

This chapter dealt with a number of issues with regards to the conceptualization of basic needs by indigenous communities and the impact by westernization on the two study communities. From the study it becomes clear that the notion that is generally held about the basic needs of the Bushmen is false in that they too desire and wish to benefit from franchise through housing, water, electricity and other amenities which the state provide to the general population.

The !Xun and Khwe had changed their way of life (voluntarily and by circumstances beyond their control) to a point of assimilation to western modernization. Their attitudes towards their current environment differ from person to person based on where the respondent grew up and under which conditions. For example there are those respondents among the !Xun who prefers to return to Angola or Namibia once possibilities could avail itself. The respondent members of the two communities generally accept the new place at Plaatfontein. Although social structures and family relation have once again been affected many families, it appears that they are now at a permanent destination with no prospects of being removed in the new future. This is because of the infrastructure that the government has put up at Plaatfontein as opposed to Schmidtsdrift.

Conflict is commmon among the different members of the community and the two communities themselves. In some cases such conflict can involve the larger part of the two communities. The mechanisms to resolve conflict that existed over the years is currently undermined with more cases referred to the police for arbitration or left unreported at all.

The chapter explored the conflicting relations towards western modernity and the sustenance of local knowledge in the face of globalization. The respondent members of the two communities are in a situation whereby their inability to communicate with the outside world and relate to it in the culture of such a world out there disadvantages them in many ways. The disadvantage is that they do not posses the western modernity as expressed in education and training. They find their skills made irrelevant by the many removals they encountered over the years. Basic needs have changed from depending entirely on the veldt products to a mixture of social grants and western modern life style in which occupying wage labour post becomes more essential than hunting. Therefore the chapter reveals the changed and conflicting relation to two sides of knowledge, that is, site-specific knowledge (used in the traditional practices) and western knowledge (used in the carrying out of labour in a wage labour relation and a western socialized lifestyle).

CHAPTER FIVE

COMMUNITY ATTITUDES TOWARDS THE FUTURE OF INDIGENOUS KNOWLEDGE SYSTEMS: IMPLICATIONS FOR RESEARCH AND IKS GOVERNMENT POLICY.

'...the twenty-first century is a century of knowledge, a nation's ability to convert knowledge into wealth and social good will determine its future.' Mashelkar (2003)

5.0 Introduction

This Chapter examines the attitudes of the study communities towards the future of indigenous knowledge systems and implications for research and government indigenous knowledge systems policy. Amongst the issues discussed include the role of indigenous knowledge systems and associated community resources for the sustainable development of the respective communities, how and what the community is doing to preserve existing local knowledge systems; what role should researchers in the community do to assist the protection of indigenous knowledge systems; what role should government play to protect indigenous knowledge system including participation in policy formulation.

5.1 Existing Community Structures

Indigenous knowledge is community knowledge. This implies that government policy on indigenous knowledge system will only have meaning if it is rooted in the

aspirations of communities with regard to the protection and promotion of their indigenous knowledge and associated community resources for sustainable livelihoods.

This section examines existing community structures in the study communities. These structures ensure that the views of the community members influence the drafting of policy and legislation that affect the !Xun and Khwe. Different persons represent the communities in the !Xun and Khwe Traditional Council, !Xun and Khwe Community Property Council, Regional San Heritage and Culture Committee, and Working Group of Indigenous Minorities in Southern Africa (WIMSA).

> *'We intend to have, in future, two separate Development Trusts for !Xun and Khwe so that each community should look at ways of engaging the outside community on matters of policy. The language barrier between the two communities necessitate that direct communication with community members be facilitated. I think the consultation with us has been slow. Most government officials do not speak either of our languages. I think they do not find an alternative to get us involved."* A respondent member of the Khwe Community,Trust.

There are different indigenous structures that are linked to the established and appointed representatives of the community. Interest groups like the Traditional healers, Farmers, Hunters, Gatherers, Community leaders and youth are influential in determining the needs of the community.

"I do not feel that youth should, as a Committee, be consulted on development of policy. Other youth in the outside world are seen on T.V talking about their programmes. I think we should be part of the changing world by participating." A respondent member of the Youth Committee in the !Xun Community.

'I hunt, that is what I want to do. I am good at hunting and I know that when a Bushmen does not hunt something is wrong with him. I would like to hunt the wild animals back in the farm as we were promised. Yes, our knowledge should be protected by law. But we should assist the committee of the !Xun and Khwe Trust. It should be part of the law-makers.' An indigenous hunter from the !Xun community.

From the above narrative it can be deduced that the local communities would like existing structures to be representative of the indigenous categories in the policy making processes. This is supported by one Khwe respondent who stated:

'It will mean a lot for my community. Once this policy is implemented the other people will know the values of my community's indigenous knowledge. But I still need to see those policies that affect us in order to understand them fully.'

The statement expresses the need for the community members to experience the impact of government policy on their lives. The implications of this can be linked to

the isolation and alienation that these communities suffered and continue to experience due to their vulnerability to westernization and modernity.

> *'I do not know what policy is and to the San people we do not need to live a life planned outside the community.'* Commended an elder !Xun and also a traditional healer.

> ' !Xun community member said: *'Ja we have WIMSA to look into policy issues on behalf of the community. But see only the leadership meets with WIMSA and we do not know what they discuss. All the hope is that it will make things better for us.*

These statements pose a challenge to the governments of Southern Africa to develop policies to protect the interests of these communities. Many governments in Africa do not have measures, mechanisms and structures in place for the protection of indigenous knowledge and related resources of their indigenous communities.

The role of outside agencies and Western systems of legal indigenous knowledge protection is critiqued by Gupta (1999) by saying that the appropriation of knowledge by industrialised countries be seen as contravening fundamental moral, ethical and legal norms that protect people from any form of ecological, political and social abuse. There is no reason why international law should discriminate against the indigenous people and create barriers to their enjoyment of their rights in that property.

There are implications in the delay in setting up structures that protects the interests of the indigenous communities. Since development is key in advancing the rights of indigenous communities, challenges should be met in favour of ensuring that sustainable development is achieved. The World Summit on Sustainable Development in Johannesburg committed member countries to: 'affirm the vital role of indigenous peoples in sustainable development'. This affirmation came out of the **Kimberley Declaration** (South Africa, 20-23 August 2001) which notes that:

> 'We urge the United Nations to promote respect for the recognition, observance and enforcement of treaties, agreements and other constructive arrangement concluded between Indigenous People and States, or their successors, according to their original spirit and intent, and to have States honour and respect such treaties, agreements and other constructive arrangements.

In Canada, for example, indigenous knowledge and heritage are protected as constitutional rights under the concept of Aboriginal rights. Both the federal and provincial governments have a constitutional obligation to protect indigenous knowledge within their respective jurisdictions, especially as part of heritage conservation regimes and intellectual property regimes (Battiste and Henderson, 2000). Since there are different utilization and conceptualization of indigenous knowledge in South Africa, there is a need for national laws to be flexible enough to accommodate local variations and local self-definition.

In Ethiopia a number of policy changes have been made at national level since 1991. These include 'respect for indigenous knowledge'. There is also participation of

communities in development planning into livelihood national discourse of environmental management (Harris 2000:164-5). Participation of indigenous communities in policy formulation of issues which affect their livelihoods is part of their democratic rights: for instance the South African government argues for inclusion and the participation of indigenous communities in the management, conservation, development process and ways of integrating indigenous knowledge into the national system of innovation. Khwe community member involved in youth matters stated:

> *'The Constitution is good and we are now part of South Africa. The policy issues are constitution issues. It is human rights'*

Unfortunately for the respondent, there are studies conducted on the Constitution that found the contrary to be a reality facing indigenous communities. Public policy is meant to resolve conflict of law; the community should therefore understand it. Van Niekerk (1997) notes that if indigenous law is accorded full recognition in this country, and if it receives the same status as Western common law, public policy and section 39 (of the Constitution of South Africa) adopt and reform indigenous law and not as means to avoid its application in favour of western law. Policy should in the act of democracy; democratization and indigenisation move away from a strict western interpretation and incorporate indigenous values. Furthermore is that 'unfortunately the constitution does not accommodate indigenous African values. The interpretation of 'equality and freedom which are in their nature meant to protect the core of human nature and human dignity as entrenched in the western Bill of Rights are exclusive to concepts of individualism, western human rights culture. The constitution fails to give recognition concerning indigenous peoples law where

western concepts like equality, freedom, and human dignity are explained within the framework of 'community ideals of indigenous society'. (Van Niekerk (1997).

> Tomson Nore, leader in the Khwe community had this to say: *'The San people were historically not allowed to make any contributions to policy development but after 1994, they have been given this opportunity so that means that it is too premature for me to comment on this issue and blame the government.The San are not only disadvantaged but the government and the people are coming together even though things are slow. I have been working with people in government who are willing to work but they are slow. The government should put more speed.'*

Respondent community members had their own understanding of the challenges that they faced in the absence of a policy that regulate the activities of indigenous knowledge systems and related natural resources. There are implications on both the indigenous communities and government itself when there is no policy in place. A study by Ntsoane (2002) in areas of natural resources and the need for their protection made the following conclusions:

> 'In the absence of policy legislation, enforcing agencies and empowered communities, the consequences are that country-related intellectual property rights and genetic resources will be exploited and developed by foreign companies...."

Furthermore western perceptions have, to a large degree, failed to recognise that indigenous conceptual systems have their own internal logic and rationality, which are not always translatable into the dominant western legal and political systems. This is

particular evident in the policy-making areas, where western terminology and concepts are imposed as a way to define, categorise and evaluate concepts in indigenous societies.

As a result, colonialism is perpetuated, because indigenous systems are subjugated to a lesser order within the dominant framework (Smallacombe, 2000).

> Member of the !Xun leadership *says this about WIMSA: 'it teaches us that the policy that is currently promoted does not help indigenous people. We in WIMSA are saying, the San like all other people, are entitled to choose how they wish to live. This is why we made people aware about our heritage and how we protect it.'*

Although the different members of the communities expressed their understanding of the need to be consulted when policy is made the over all observation is that in South Africa, just like in many parts of other developing countries, the are policies that are based on the Euro-centric view. Such policies are not in any way assisting the liberation of the mind of the indigenous. They instead internalize the mental colonization by subjugation, misrepresentation and not allowing indigenous intellectuals to be in the centre and forefront of policy making. South Africa's developmental policies need to be indigenized. It should be noted that many governments draw their policies and regulations motivated by positive economic results rather than by moral rights. This does not mean that those governments ignore the rights of artists but that such policies and regulation should contribute to the scientific, cultural and economic enrichment of society.

Challenges that are faced by communities without policy guidelines do have impact on the social development of indigenous communities. Such challenges come in the face of globalisation and struggle for national culture and national identity. Many communities who want their interests met enter the contest for national identity and to influence national culture. The San people throughout the years never had a voice or representation to ensure that their interests are catered for.

It is when the indigenous people decide to define their knowledge systems and related cultural and intellectual property rights that they may be able to protect themselves from exploitation and development systems that serve them positively.

Despite the situation that the !Xun and Khwe found themselves in the past, there is hope for the future. Many respondents in both Schmidtsdrift and Plaatfontein express such anticipated progress.

5.2 Categories of community members involved in indigenous knowledge related activities.

This section is about various areas in which the members of respondent communities are involved in. This includes a number of those areas which members engage themselves in for making income or sustainable livelihoods.

CATEGORIES OF COMMUNITY MEMBERS INVOLVED IN IKS

1. Traditional healer: this category consists of practitioners who specialize in medicinal plants and cosmological knowledge. They are stakeholders in the development of policy and are affected by research.

2. Farmers: these are practitioners who specialize in food and livestock production. They have reproductive knowledge and are affected by researchers

3. Traditional /Community leader: most of them maintain the social institutions. Are mostly facilitators, interpreters and coordinators for researchers and policy makers

4. Hunter: this category specializes in hunting and the behaviour of the veld. They are affected by environmental policy

5. Gatherer : they have knowledge about food and wild fruit. Have intellectual property about the veldtfood.

6. Midwife: they work closely with healers and specialize in child diseases and reproductive health. Health policy affects their functions

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Traditional healers possess great knowledge about many things within the community. Since most people in the respondent communities still consult with traditional healers their responsibility is worthy of protection. A healer from the Khwe community commented thus:

> *'Long before the arrival of white people, we lived in the bush and had done a lot. We cured diseases. We cured the difficult disease according to the song: 'When we sing our ancestors come to us and tell us about the cure for the disease. You see I am guided by the ancestors. I have to first find out the type of sickness that the person is suffering from. The ancestors will tell me about the disease and provide the medicine to be used. If you do not care and the ancestor can't provide the cure the patient would die.'*

Only two respondents members of the !Xun and Khwe participated in the research as traditional healers. Traditional healers are also gatherers of natural resources and the female one, from the !Xun, also identified being a mid-wife as her capacity. She also indicated that as a leader of a small group of women and men within the !Xun she commands respect as a community leader who encourages people to protect the environment and traditional culture as well as heritage of the area. Her knowledge about biodiversity places her in a better position to have knowledge about the natural resources.

Although hunting is restricted to the male domain, it has almost disappeared because of lack of access to the veldt and the protection of the wild animals themselves by those farmers in the surrounding areas. Hunting is noted as a basic resource for the !Xun and Khwe people and should be practised at all times.

> '*When it is not practiced it's like a man is alive but dead inside, when a Bushman is no more allowed to hunt*'. According to Salvador !Xun male respondent.
>
> *'When ever you see a hunter then when ever he or she wants to hunt, it is in other individual's land which is illegal and they can be caught and it will be a problem.' Hunter from !Xun community.*
>
> *'The men were the hunters. But now we are struggling they must have a mind change.'*

'When we were hunting, we did not have alcohol and abuse problems and now the people come here to make money from selling alcohol.'

'Yes, we do not know crimes and we can hunt anywhere because the animals belong to us and we share them with others, because outside (when we go hunting) we think about how the whole community will benefit. We do not know money, selling and buying, we know that we must share even our salaries. Sharing is part of our culture.' Respondent from !Xun community.

Although there is a committee designated for farming, non of the respondents was a farmer since farming has never become a practice among the San people in southern Africa including the !Xun and Khwe. There was a substantial number of people who were identified as community workers. The reason for such a high number of participants is that there are no prospects for jobs outside the community. People end up with small jobs within the respective community.

5.3 Community members and indigenous knowledge system policy

The study was interested in establishing the aspects that respondent communities wanted to be included in the indigenous knowledge policy.

Response to the question about the communities' awareness about policy dealing with indigenous knowledge drew a blank among many respondents' members of the communities. Only the leadership that is involved in the !Xun and Khwe Trust and WIMSA who participated in the research seems to be aware of the debates and processes dealing with policy. They are less than five and their positive response was

indicative of the level of involvement in policy making by the indigenous people. Consultation is made difficult by many factors including language differences; worldview and life orientation of government officials and that of the respondent community members are quite different. The other factor is attitude that is inherent in majority of the South Africa population towards the San people in general. This was caused by the prejudice of the past regimes and its divisive policies that keep people separate.

Responding to the question Mr Nore, leader in the Khwe community said:

> '*The San people were historically not allowed to make any contributions to policy development but after 1994, they have been given this opportunity so that means that it is too premature for me to comment on this issue and blame the government.*'
>
> *'Yes the process is slow because the San people have been introduced in the protocol on addressing particular things. The San are not only disadvantaged but the government and the people are coming together even though things are slow. I have been working with people in government who are willing to work but they are slow. The government should put more speed.'*

The level of vulnerability and insecurity amongst the elders in the two respondent communities' is high. What makes things worse is that there is feeling of isolation amongst the members who are now unable to be involved in the performance of social role. Different aspects of policy and an in-depth understanding of its implications on the livelihoods of the indigenous people is not popular among the two communities. But there is an awareness of exploitation and lack of protection among certain respondents.

'Bushmen are always exploited by whites who came as visitors. The Mandela government should protect us. We voted (Nelson) Mandela, and he came to visit us. He promised houses and we have them but not protected...we want people to recognize us as people not animals to take away what is ours. I support the law that will arrest those who continue to exploit us and our rock art is big business for whites. Why are you and the bushman not in this rock business? Because, we respect the ancestors; and won't disrupt things. So Bushman should be protected.'

The respondent makes reference to Mandela even though he has long left active politics. To many respondents like him, Mandela is a great symbol through whom a lot have been achieved. Local people respect the politicians and the leaders who came to visit and talk to them.

'H*ave you tried to look for wild food, I could not get a thing from the nearby places. I need culture to be protected and our children be taught the good about us. What God gave us is the veld we need to work in the veld. We are born hunters and this should be protected. How? Because, Bushman should hunt. We should be helped to hunt so we protect the skill.*' Emphasized a respondent member of the !Xun community

'Our children shall not have a future because all do not protect the language we got from the ancestors. We can not have a land and can not talk with it. I see promotion of San language. I can not teach about the medicine and other

foodstuff. That must be protected through the dances, stories and that is language we use to share with each other secretes about our past.'

'There is development about houses and water but we want to hunt now. We were promised to get land with animals. That for me is what should protect our culture. The Bushman likes the veldt. We are part of culture- we are culture people and have good ideas about the animals- all even small ones that the eyes cannot easily see. We see them...'

Respondents had different ideas about what should be protected. The need for them to continue practicing their culture, hunting and teaching the young ones is seen as a form of protection. It appears that material development is not the sole success that is registered by members' response. It is through practice and living culture that knowledge can be protected. Although it is not clearly expressed in the respondent's statements, it is apparent that the !Xun and Khwe crafters (separately though) want a protection that goes as far ensuring that they directly benefit. The reference to rock art is a serious issue that for many years became a market monopolized by white curators and enterprises.

The following issues were identified as areas to be included in the protection mechanism and be spelt out in legal terms as to how it can benefit the communities. These issues are linked to a total knowledge of the development of the !Xun and Khwe cultural heritage and biodiversity on which they depended for many years for their livelihoods.

Table:5.1 Aspects for Inclusion in Policy

Aspects Which Respondents' Members want included in the Policy
1. Protection of local knowledge; including sage, survival strategies & wisdom(KP1*)
2. Protection of local resources; including Biodiversity (KP2)
3. Protection of language and cultural values; including community relationship (KP3)
4. Recognition of communities cultural heritage and Practices; including Rock Art (KP4)
5. Promotion of all aspects of the IKS sector: Covers all above (KP5)
6. Development of areas that contribute to the welfare of the community (trade) (KP6)

Key: KP refers to the key policy issues as indicated in the box.

Interviews with respondent members from the Khwe community, both male and female, indicated that protection should mainly go for KP4 and KP1. This contrasts with respondent members from the !Xun community (male and Female) who prioritized KP3 and KP2. These responses were followed by KP3 (Khwe) and KP4 (!Xun). From the responses above it appears that communities want to contribute to policy development. Policy makers should consider those who will be affected by the implementation of policy.

A focus group discussion conducted amongst the !Xun members resulted in the report below :

Policy cannot happen only in the government, the people on the ground should influence it; at the same time policy should reflect the nature of developments planned. Indigenous people have direct impact on the development of the policy, the ownership of policy and its distribution.

The report has deep sense of understanding that gone are the days when policy was the sole responsibility of government and those close to its seat. Policies designed by people who deliberately exclude those to be affected by it should be avoided and the affected communities should see a broader involvement and consultation as a buy in. A Khwe member of the community concluded that:

'We want to have a person in parliament to tell government what we need when they do plans. Our culture is not understood. We have changed a lot as hunters.'

Direct representation in government is what the respondent is calling for. There are many representatives for the different communities in South Africa in parliament but no one represents the interests of the Bushmen. In a democracy, which they believe in , there should be a representation who will serve their interest. This does not mean that they have a negative perception about the government but such an expression in a representative and participatory democracy is more than welcome.

'Everything you ask is important for us, language, local resources and better recognition of our culture.'

The focus group raised a lot of issues that relate to the significance of democracy. They even gave an example that former South African President Nelson Mandela came to visit them. He is a leader who shows interest in the matters that concerns the Bushmen. They regard the open discussion as important and that all the questions that

were asked are important for them. Not that they have all answers but just a sense of sharing their problems and frustration is a sign of appreciating their plight.

One !Xun community members had this to say about inclusion of their wishes in policy formulation.

> *'I want my language to be protected. I feel knowledge is better in !Xun'*

> *'I am Khwe. Will always be Khwe. Our language is on XK FM that is the future of our people.'*

Nicolas, one of the leaders of the Khwe supports Tomson's emphasis that the San want recognition of their right as contained in the Kimberly Declaration.

'The San have to be given the respect upon which they are allowed to practice their culture; such rights should be understood as part of the movement that restores the dignity of the San.' Khwe respondent

Nicholas went far on to include that the biodiversity should be protected. About Biodiversity, Nicolas says:

> *'I was brought up in the tradition of the Khwe. I have knowledge about the different plants and animals. How they should be conserved, harvested and utilised. I am now concerned because the elders cannot pass over such knowledge to the young ones. The environment has changed and the San removal from Angola and Namibia has also affected the strength and*

relevance of their knowledge and relationship to the land. Schmidtsdrift is not a good place. Plant variety that is in the area can be used for different purposes. It should be noted that the cultural heritage of the indigenous people should be protected in the interest of the indigenous people.'

'I see and understand that their liberation as the San is not yet attained. It is through policy led by government that it can achieve substantially in the areas of indigenous knowledge.'

The other interesting input to the policy debates came from Mario Mahongo, leader for the !Xun. Mario feels strongly about the involvement of the !Xun leadership and the community in the drafting and writing of the !Xun policy. He says that people should not come with policy from outside and say that they should just follow. He suggests a community as the key driver. When the people are part of it then it can be part of them.

'Policy is very important for development and ensuring respect for the !Xun culture policy and research are closely related when it comes to the !Xun in that their problems with government need to be understood that they do not have a leadership that represents them in parliament. They can only have their say through involvement in policy. Although many things come to the community already completed, this is unacceptable. There are several projects to which proper policy should be developed. !Xun would like to be part of any stage of development that affects their village.'

Involvement, Mario notes, makes people own the project and that the research that involves the indigenous people will assist in the sustainability of the projects that the community planned. The long term isolation from other indigenous communities has made the !Xun and Khwe communities turn vulnerable to commercialization. Their dependency on government assistance has increased over the years.

5.4 Community relations to service delivery structures

The !Xun and Khwe depend not only on their indigenous ways of survival but to a large extent on the support from different agencies including government. Since their when they we moved from the native land, the San community has seen and heard lots of promises about improving their lot. This has resulted in them developing attitudes towards delivery structures in general.

Respondent member from the two communities had these to say about service delivery structures:

> *"I buy almost everything nowadays. Nothing that is promised by leaders on T.V comes for free.' A* Khwe community member.

> *'We have to travel far to get medical help. There is no clinic in the community. We depend on people who have cars to take us there and they charge money and you pay money to the doctors for the medicine. We used to get this from our medicine men. It is hard nowadays.'* A !Xun community member.

'We cannot protect what we learnt from our parents. Here the land is with no soul. We no more depend on it for our children's future, for our daily needs. NO! we have to depend on the money you get -without it you are with not food, no house , nothing.' A Khwe community member.

'Sometimes we get money from NGO but it is never enough. We need our own building where we can practice cultural dance and do other cultural activities with the youth. In this way we will protect the old traditions of the San.' A leader of Youth Committee.

'The leaders should build a clinic for us. We have a school its fine. But the sick ones have to travel a long distance to the clinic.' A Khwe respondent.

The overwhelming response included infrastructure and medical and health related assistance. Since it was the women who appear to be utilizing the medical and health facilities the expectation by respondent members demonstrated that the majority depend on outside supply for health and medical assistance. The fact that respondents do not have those natural resources that they easily relate with, the issue of protection becomes problematic. The knowledge that they learnt over the years from their ancestors is at the risk of disappearing. This is because the dependence on outside assistance has made the San culture assimilate to the demands of the commercial and western modernity.

'As a member of the youth, I am responsible for many things. At times I help to get the sick to hospital; I call the ambulance and so on.' Commended Mario(jnr).

"... We need playfields for children, now we have water and electricity; we need a hospital, police stations, taxi's and a rank. We also need offices for the leaders of the Xun! and Khwe."

Most of the assistance the community receives comes from the different government's departments. Non-government organisations do provide workshops, sponsorship for youth and capacity building. There are no church organisations involved in the community. It appears that youth organisations are more involved in the !Xun community than the Khwe. This is evident because no active organised structure is in existence among the Khwe youth.

There are problems encountered by the members of the !Xun and Khwe respectively when it comes to the assistance received from outside structures. This is illustrated by Ms Moyo:

'There are no recreation facilities for young people. We get bored sitting and end up doing the wrong things. Some young people drink a lot because they have nothing to do. Young people especially girls fall pregnant because of idleness which results into things that destroy the future of young people.'

'We are happy, generally, with the services we get from outside the community. But the government of the province, Mr Dipico promised us flushing toilets but we ended up with bad, bad toilet system. We are not happy; we do not have what other youth get in other communities. No sports complex no exposure. I see on T.V that the youth in other parts of the country get so much help. They develop faster than us . it worries us. We too want the services as citizens, as youth we need that.....' Mario(jnr).

The statement shows that the leadership of the San is concerned about the many promises that are made and non-is fulfilled.

'Sometimes the organisation that I work for does not pay me. They did not do that for two months. I think as youth we should be taken seriously by those involved in community development. We are busy finding the land for sporting-soccer. The soccer field will be available in the near future. At times there is communication breakdown between the outsiders and our elders. They cannot communicate with the parents. This is a problem if they had to do work with parents exclusively' Banjamin added.

The effects of service delivery is felt by all age groups among the !Xun and Khwe. Without support from the outside organisations and government, life in the new environment is difficult. Youth among the !Xun are keen to get help to improve and add value to their leisure time by engaging in positive activities. The problems of communication break down among the outsiders and the two communities results in misunderstanding and later disputes over services. As to how this affects the protection of knowledge, the research looked at the disarticulative support from

outside, the failure to comprehend the interests of the San into planning and the absence of coordinated support by government with regards to those issues which the San regards as essential for their survival.

5.5 Attitudes of community members towards government resettlement programme.

Indigenous knowledge is community knowledge, which should be used constantly to address the challenges faced by members of community. When a community is forcibly removed or resettled to a new environment that is totally different from the previous one the knowledge linked to that environment will suffer. This section looks at the extent to which the !Xun and Khwe were affected by the settlement at Plaatfontien and Schmidtsdrifdt.

The following are areas that were impacted negatively by resettlement. They are discussed in relation to knowledge protection subsequently hereafter.

Table 5.3

Shows the results of the interviews with individual community members and focus group discussions which revealed the following effects of resettlement on the study communities.

The Effects of Re-settlement on the Study Communities
1. Loss of property
2. Separation from ancestral sacred places
3. Separation of family members

4. Separation from familiar natural resources

5. Loss of initial community togetherness

The resettlement affected those activities that dependent on land relationship such as hunting, gathering food and medicines from the veld. This is explained by Ms Mosowe, a traditional healer among the !Xun community:

> *'I cannot access the medicinal plants in this new settlement. Most of the plants that we use for healing are found in Namibia and Angola. I still have to find what the new settlement has for me. I am not at all happy with resettlement that does not stop. At Schmidtsdrift there were not enough plants. I see many people go to western doctors now.*

Respondents' community members expressed a general sense of having been affected by the resettlement. The worst was to stay at Schmidtsdrift for over ten years in makeshift tents. Different members of the respondents were affected by the re-settlement in different ways. Loss of property includes but not limited to the personal property owned by members of community; livestock and land. Since the people had a communal ownership of the land and access to its natural resources when they were resettled to new areas they lost familiar resources used for sustainable livelihoods.

> *'I was affected by the government resettlement. Most of my neighbours are new. They were not staying next to me at Schmidtsdrift. I still have to know them. I introduced myself to them. I told them that I am a good person. Do not trouble people. JA. I was told that one of my neighbours was a bad person. He*

drinks a lot and causes problem for his people. I said ja. But I went to greet him and told him who I was. Well. He only drinks and make jokes with people in the streets. So I do not have problems with him. But most of my friends are still not used to this new place. I miss my friends a lot and write them letters. Resettlement also took away veld products that we used to get. The initial community togetherness is lost. I have to learn the new ways here. But it is not a problem. It is better here.' Benjamin from the !Xun community.

This narrative above shows the impact of resettlement on loss of initial community togetherness wherein members of the community have to introduce themselves to new ones and begin new neighbourhood. These impacted on the psyche of initial togetherness of members of the community. Mr Kamama respondent member the Khwe community narrated this :

'*Initially we said to the government that we must go closer to Kimberly because of the jobs. We are not all happy because of the crime and the community is not used to living in this big community with one tap and the same house but some people are not used to that. The youngsters use the tap and electricity and the elders prefer to make a fire outside and this is dangerous because the smoke might kill people. People also do not know the value of money and shop-owners might rob them. People do not know the price because the old people have not gone to school.'*

The new common houses have brought families together on the other hand. This means that the whole family is expected to share the house. Unlike at Schmidtsdrift where tents were allocated and families would have each tent as a unit. The boys

separated from the girls and young children. Now the house has turned to be too small for those families that are used to more open spaces and separate tents within their yards.

> *'I have complained about the house, the rooms are too small. I need a bath room where I can do my washing not anywhere. Some families are big to be in one bedroom.'*

> *'A lot of us do not have enough understanding about the natural resources around Plaatfontein. We lost a lot of what we knew in Namibia. We cannot cry now. We need to live and our children will be without the Bushman knowledge. It cannot be saved now that the young people go to school and prefer to live like other people in the towns.' A !Xun elder.*

As for knowledge protection and how it is affected by the resettlement the following were observed in relation to the narratives provided above. First, is that what people possesses in memory can be shared through narrative or collective public space utilization. Knowledge resides in peoples' memory. It can be carried over years through performances and sharing. What people knew when they were in Namibia was relevant for them to survive within that particular environment. When people were resettled in South Africa a lot of what was known remained in the minds of the knower with little to no transfer to others because the actual knowledge could not be linked to the activities in the environment.

Second, elders could not teach the young people about the knowledge from the previous generations. This is a challenge for the notion that Indigenous Knowledge is passed from generation to generation. The !Xun tried to have a close net and conservative attitude and approach towards protection of their traditional knowledge. Since no knowledge could be passed through institutions based on traditions, the !Xun opted not to intermeddle and socialize with the Khwe community members. In so doing the little knowledge that parents imparted to their children could be developed through narratives, performance and apprentices.

However the isolation was part of the broader social differences that existed between the two communities. Knowledge could be protected by permanent settlement, establishment of structures to enhance cultural heritage, study biodiversity and utilization of natural resources. Biodiversity has to a larger extent not benefited the two communities because they never had enough time to master the environment they lived in while at Schmidstdrift. Certain practices within the indigenous communities are better understood within a historical link with the land. Unless people are linked to their land their knowledge about biodiversity will be too limited and therefore compromise the contribution to livelihoods and protection of biodiversity, cultural heritage and knowledge. Community members need time for adjustment, adaptation and co-existence to a new environment.

The loss of initial community togetherness has implications for protection of knowledge either through performances or recording. Communities are used to working together in developing a common social-psyche which is necessary for creating common identity and a sense of belonging. Therefore when resettlement took

place at both Schmidtsdrift and Plaatfontein contact that was established by different members of the communities was lost and with it the trust, tolerance with neighbourhood.

Resettlement at Plaatfontein seems to be the last for the !Xun and Khwe communities after over thirty years of being moved this way and that way. A permanent settlement would surely create a new way of developing and promoting traditions, cultural heritage and biodiversity. After some time, members of the community will adjust to the new environment. Thereby, starting to create means and ways to produce new ways of dealing with their environment. In short to indigenize, making do with the new environment on the basis of mixing tradition with exogenous ways that will improve it.

5.6 Community research and the future of indigenous knowledge systems

'I want to see the Bushman write their own history so that we can interpret our own language, because when you are translating everything you lose things... 'Kxao Moses

"We know things with our lives and we live that knowledge, beyond that any theory has yet theorized. Making this theory is the challenge before us. For in its production lies the hope of our liberation, in its production lies the possibility of naming all our pain- of making all our hurt go away." Mari Matshuda

This subsection deals with the study communities' attitudes towards research work in the community and implications on the future of indigenous knowledge and associated indigenous resources. The subsection is based on the argument that research amongst indigenous communities has for a long time addressed the interests of the researchers and their respective institutions. As postulated by Fatnowna and

Pickett (2002) indigenous cultures are perhaps the most researched in the world- by others but ending largely with knowledge as interpreted through the lenses of perception and judgement of the researchers' own culture. Most of the time the knowledge produced was in response to what the researchers, not the indigenous people, saw as issues of interest, relevance or concern. Hountondji (2002) adds that research in Africa, and in all countries at the periphery of the world market, is as extroverted (externally oriented) as its economic activity.

Various researchers visited Schmidtsdrift in the past ten years and for over fifty years these communities provided fascination for cultural anthropologist, ethnographer and archaeologist. Whites conducted almost all published research with a European epistemological orientation making research a western domain on non-western cultures. Protocols and ethical foundations were determined by dominant cultures on indigenous people that made it impossible for indigenous people to express their objection under such oppressive self imposing methodologies of research. For many years since Francis Bacon set the tune for research others in the form of Newton, Kant, Hume and many others followed sort and ignored any other form of inquiry valid irrespective of cultural difference it contained and expressed. The whole worldview of research became a one-way stream of knowledge production for the sciences. The challenge now is that it is no more business as usual since the emancipation, liberation and democracy among the indigenous people the world over, including Africa. New ways of understanding the old world are gaining ground and it is necessary to contribute towards a new humane and sensitive way of conducting/carrying out research. The !Xun and Khwe are also people who after being classified as San/Bushmen were objectified and turned subjects of intellectual

exploitation. In fact all the non-western cultures and its custodians were exploited in many ways than just physically. This chapter turns the old business away in favour of the new since it is no more business as usual in the area of research.

It was through the efforts of respondents members of the !Xun and Khwe communities that it was possible to explore the new ways of dealing with research. It is scientifically true that there are other ways than the western ones that work. There is room for triangulation and integration; there is space for narratives as form and sources for research and there are ways to validate the narratives within the indigenous research methods.

The following areas were recorded as those which are frequently researched within the !Xun and Khwe communities. Most researchers have in recent years increased their interest in the research agenda of indigenous communities. This has been made so by the discoveries made by western drug and food research companies. Focus group discussions in both study communities indicated the areas which are normally researched in these communities.

Table 5.4

Researched areas of knowledge among the !Xun and Khwe
1. Traditional healing
2. Indigenous plants
3. Indigenous music and Art forms
4. Indigenous Survival strategies
5. Indigenous cultural practices

Since it is the leaders of the two communities who most of the time interacts with the outsiders including researchers, they constituted the main respondents on attitudes towards research. The narratives below capture their frustration with researchers.

> *'I am actually very concerned about researchers, I must say I am also very active in identifying that the research done in the past was very wrong, still the research results are still very visible in the communities for example, some of the researchers even describe the physical features of the San and then they go further than that saying that they have got smaller brains. The San people are the people whom you cannot desire because they are not like the normal people. In Africa we are fortunate to come and see the San people by ourselves and see that they are people like any ethnic group. Therefore research in the past was done very wrong and we must guard that it does not happen again.'*
>
> Mr Tomson Nore, leader of the Khwe community.

The essence of the response by the Khwe leader indicates that the San people had been subjected to research for many years since Archaeologists and cultural anthropologists set foot on the shores of Kgalagadi/Kalahari. The narrative captures the racial connotations that went with the interpretation of research results and the negative presentation that the researchers carried. As a leader in the community the respondent is cautious about the need to cease the type of research that undermined the moral and integrity of the community members. This was supported by the !Xun respondent:

'When people come here we get nothing, they take our cultural weapons and knowledge and they give nothing to the leaders to thank them. When they take ideas of other communities they do not pay them and with us they do not give us ownership that we want.'

To support the concerns of the San people in Southern Africa, WIMSA (2003) passed a regulation in a form of contract that they expect should be entered into between researchers and the San community:

1. *Any individual or organization wishing to engage in any form of media transmission, whether of film, video, radio, newspaper, magazines, photographs or the popular press, which transmission involves the San peoples, must apply for permission from a designated leader. The application should contain the details requested for in the information sheet on the basis of which permission may be granted.*
2. *If permission to publish is granted, it shall be provided on the WIMSA* ***media contract*** *form, which sets out the rights and obligations of the media.*
3. *Failure by the media person or organization to comply with the terms of the contract will lead to cancellation of the contract, and to appropriate punitive action.*

It is within the rights of all elected leaders to halt the plunder of the San culture and move decisively to implement the Contract as stipulated, in part, above. Although the contract is in existence the general San community does not understand it. And the narratives reflect this wherein only the elected leaders understand the contract. Being aware of the weaknesses embedded in the current happenings, WIMSA stated:

'No amount of policies or contracts can take the place of the informed desire of the San to manage and protect their own intellectual property, as part of

their unique heritage. Thieves of San culture, whether film-makers, authors, academics or others, should all be stopped.'

'In this time of our life as a people, the government should support us and give us an office where we can give people information and have a center where people can take pictures and sign contracts to get information about what is going to happen to our pictures'. Leader of the Khwe community.

'The research was not fair, they denied us access to the results and they made them secrets. Much of the research was done by whites and we want to do our own research.'

'The leader says he is not happy that people create stories, take pictures and researchers because they do not pay the community but the San in the Kalahari are paid and the !Xun and Khwe do not benefit.'

There are expectations stipulated by the WIMSA contract which were widely accepted as guide for protocols and ethical conduct by the San leadership. Protection of the San Heritage is largely given to the leaders, they are held responsible in this regard. San leaders of each community should decide whether they would become active guardians of their own heritage and intellectual property rights, reads the WIMSA (2003) report. The leader of the Khwe community when asked about researchers expressed the following:

'I would recommend that if researchers come they have to give us a proposal about what they are coming to research and what is their aim with the research and what we will benefit from the research. The community must be part of this research and there must be a positive collaboration between the community and researchers in order to avoid the mistakes made in the past. The research must be legitimate and be accepted by the people and leadership in the community so that the leadership can identify the necessary interpreters and the end product of the research should come back to the community and this is what I recommend today to prevent the mistakes of the past. Mr Tomson Nore

This statement is supported by WIMSA (2003) 'the image of the San is used in many films and books by 'authors' who take the San image without paying (eg many postcards and photographs are published without the San's knowledge). There is a conscious move towards recognizing the new path that researchers should take. Ntsoane (2002a: 113) observed that 'there is a need for a new approach to research methodology, a new scientific inquiry that takes into consideration the fact that new knowledge production revolves around the non-professional, that is, the real custodians of endogenous knowledge themselves.

A respondent member of the !Xun community confirmed that it will be better if the indigenous people do research by themselves.

'Yes they will keep some things and will write agreements on what they can offer because in the past people stole knowledge and never came back and the knowledge got lost in the books because people who gave away information died.'

'Yes so that the youngsters can keep the information while helping the researchers.' A !Xun youth leader.

It is therefore necessary to establish protocols for research carried out among indigenous communities. Such protocols should first of all be founded in the laws of the owners of the land (the first occupants). Ntsoane (2002a) further postulates that ethical issues should be reviewed, much as the history of research should be reworked, as the need for an 'indigenised method' is pivotal. As long as the tools and instruments of research, including the types of questions posed, are not worked out together with the indigenous communities themselves, the problem of understanding endogenous knowledge will persist. Indigenous researchers should be encouraged to form and work within networks designed for the exploration and implementation of new methods of gaining knowledge from their own communities, as well as to provide guidelines ensuring the preservation of endogenous knowledge and the respect of its holders (ibid).

According to WIMSA (2003) the respect for language is another foundation heritage and culture. San peoples should be assisted by their governments to have their children educated in their own language, at least until primary school level. This has happened in some countries. The Jul'hoansi of Nyae Nyae (Namibia) have their own primary school teachers teaching children in their own languages for the first three years of schooling. Language, concludes WIMSA, is part of their heritage; it is what makes San different, and special.

'In the past people just wrote down and never implemented that they wanted to learn the language and some books were translated to English and in Germany there are books in San language but it will be expensive to bring a lecturer to teach this language. We are developing some languages and the government must educate our people so they can write our language down.'

Researchers had for many years done work amongst the San people without reporting back or recognising those who were assisting in carrying the research out. As captured below by Mr Tomson Nore, a Khwe leader.

'In the early sixties some researcher from Cologne in Germany came to do research with the San people and they lived with the Khwe speaking San people and he has done research on the culture and tradition of the San people, he even researched on their language and he has even written some documents. You can see the problem because the community was not consulted and they did not participate fully so now we have the results of the research and it is the twenty first century it is over thirty years since this research was done and we are not using the findings because they are not user friendly. This is what I am referring to when I say researchers should work with the community. Some of the San people who are lucky to have matriculated and advanced to tertiary level convened in 2000 in Windhoek to propose some changes to the autography of the language and the researchers refused to take our recommendations as the San people of various San groups and this shows their disrespect for the San people. Therefore we have a problem with the researchers.'

Similar research problems were experienced in other places as indicated by the case study below. Although not directly applicable in the case of the San it compares brilliantly with the WIMSA contract that is aimed at 'assisting San leaders to understand culture, tourism and intellectual property, provide guidelines for the most common situations and provide a basic agreement between the San community leaders and those interested in research, filming, taking photos or writing about the San people. The case study puts across those questions that matters most when dealing with indigenous research.

5.7 The Case Study of Centre for Aboriginal Studies in Australia

This case study, although summarized to research questions, will be useful as a guide to what can be done in order to ensure that the research protocols are put in place, training takes place and indigenous people get in charge of their knowledge production. The center critically and constructively address the following types of issues (Fatnawna and Pickett, 2002) :

- Is it possible to identify an indigenous research and development paradigm?
- How , in a particular case does the centre protect itself from repeating past practices in research work by creating indigenous researchers who may continue to enact colonial methods of research in indigenous communities?
- How does the postgraduate programme influence and inform current university structures in process and assessment that will reflect indigenous peoples' desire to represent the creation of knowledge the indigenous way?
- What changes to university as a system does this imply?

With these questions in mind it is now time to look at the possibilities to do research with, for and by indigenous people to overcome some of the problems that have arisen from past practices (Abdullah and Stringer, 1997). There are a number of issues that the study will critically and analytically look into in favour of indigenous peoples. These including the issues of consultation and access to the research community; prior concern, report back, benefit from the research etc. Ntsoane (2002a) states that the development of new methods to record indigenous knowledge systems is an imperative, and in turn a change in the attitude of researchers and extension workers is necessary. Though an awareness of IKS is rapidly increasing, the lack of adequate research methods creates a vacuum.

Research should move beyond the interest in conserving what the western science prospect to interest in the continuation of indigenous knowledge systems. Research should not limit itself to the recording and documentation of existing knowledge but support the prospect and continuation of indigenous cultures. Local research conducted by international organisations (at times using natives' academics) has not only left the indigenous communities with painful experiences but their intellectual property rights has been lost to western private companies.

Research has yet to demonstrate respect, restoration of indigenous people's dignity, integrity and the new methodology when it comes to doing research on indigenous peoples. There is a great need to shift the paradigm from doing research *on* to research *with*. Professors who have not set foot in the indigenous communities do the authentication of what will be regarded as the results of the research. Who lack the understanding of the daily lives of the very community s/he has to pass judgement on.

It is from these worrying facts that new research protocols are called for. Protocols that will usher indigenous research are needed. The purpose of these protocols will be to 'generate and promote appropriate methods of knowledge production'; to rehabilitate existing areas of misunderstanding and misinterpretation about indigenous peoples and to bring in indigenous perspectives into research.

Within South Africa, continentally and internationally, there is a need to establish new research protocols and codes of conduct for scientific work, by initiating a critical reflection on the ethical questions surrounding research in the human and natural sciences, and to raise new research questions (Odora-Hoppers, 2002:16). She further posits that in seeking to move towards an IKS research agenda, the core strategy at the level of epistemology is to seek the best of both. Both the Western system and the IKS represent national resources. There is a need to 'clear space' in institutional and other policy arrangements for these diverse knowledges to exist and participate in the unfolding modernisation process (ibid).

Asked as to whether he would recommend that there should be a way to implement the recommendations of the research in the community, the Khwe leader Mr Nore said:

> *"Definitely if you identify a topic or subject which you want to research then definitely before you can put your proposal on paper therefore it is possible for the researcher to make recommendations on the case and these recommendations must come back to the community so that we can try them out. So that if it is the aim of the research to change the situations then the*

recommendations must come to the community so that we can see and try out these recommendations.'

He furthermore added that:

> *'There are a number of issues, when researchers come to the San people they ask questions and they are answered, when they have those answers then they leave the community, then they perceive them as people with no knowledge even though they receive intellectual knowledge from the San people. We do not have a good space to practice our traditional knowledge transferred to the young ones. I do not know how we can translate this into an economic way because not all skills are based in the veld. The old people used to make bow and arrow, woodcarvings and musical instruments and the way they solved problems was in the intellectual knowledge of the San people. And my concern is that we can translate this knowledge to be economically viable in this century for the San people.'*

Central to the narrative above are two issues, the intellectual property and economic benefits. The respondent is aware of the knowledge and its relevance but also as to which part of the knowledge can be used for economic activities. The challenge is how to go beyond surviving on natural resources only but to seize the opportunity that modern skills can do. The problem of infrastructure is raised in line with knowledge production and sharing. These indicate the desire by San people to have their cultural traditions and its related activities protected, used to the benefit of the indigenous community and the outside world.

Lamenting about the behavour of researchers Mr Kamama. leader in the Khwe community said:

> '*The research was not fair, they denied us access to the results and they made them secrets. Much of the research was done by whites and we want to do our own research.*'

Mr Kamama's response represent the many voices among the indigenous communities who for all these years were turned object of research and subjects of fascination by the researchers. Research according to him remained a domain of secrecy and its outcomes never spoken about by the non-researcher. He points out at the white researchers who of course took it as their profession to study the colonized. It was this research on the native that sparked controversy in many study areas including archaeology, anthropology, history and science in general. The controversy has always been to present the colonized as inferior to the rest of the western world. It is when local people do their own study about themselves and intepret results thereof , can the new epistemology be found. Such a change in research agenda will encourage narrative and orality as part of data collection and analysis. Mr Kamama articulate a new paradigm shift from the old school to a new epistemic and cognitive education which respect the human dignity of the people irrespective of their historiography, language and cultural heritage practices and belief system. In this case the !Xun and Khwe whose attitude towards protection of their knowledge systems and implication for research and policy has resulted in them challenging the status quo on researchers and policy makers.

5.8 Conclusion

This chapter looked at the social structures that are used in the communities as part of ensuring the development, stability and general well being. There are numerous structures that are newly established to look at the interests of the two communities, jointly and separately. These include those that look into policy, protection, and development, networking and representing the general communities in matters that affect them. Participation in policy is important for indigenous \communities. Indigenous communities are calling for a better government policy coordination and involvement in all matters that concern them.

Community involvement and ownership of the research process came out very clear in that respondent members of both !Xun and Khwe realizes the significant role that they can play in influencing research. Now local and indigenous communities realises that gone are the days when research was the secrete work of white experts from outside the community. Researchers should not only consult them but should involve them in the process and ownership of the benefit of the results.

The different areas that needs protection includes: local knowledge itself; local resources; indigenous language; cultural heritage and practices. Protection of indigenous knowledge is a social phenomenon in that indigenous communities should be included in the creation of a favourable environment and national policies that 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 holders of such knowledge, innovations and practices.

CHAPTER SIX

'Local cultures and knowledge systems are part of the scarce creative heritage of humanity"
Rene Devisch

6.1 CONCLUSION

This section provides the concluding observations from the study.

The first two Chapters revealed that African indigenous knowledge systems are found in indigenous wisdom systems derived from many years of experience and experimentation. It was argued that indigenous Africans have a philosophy, wisdom systems based on community ways of doing things. Justice was not done to the challenge of placing an etymology of philosophy outside Africa. Various categories of knowledge that are fundamental to the study of African indigenous knowledge systems were demonstrated.

The study draws the following conclusions to the attitudes of the !Xun and Khwe communities towards protection of indigenous knowledge systems and implications for research and policy development :

- Indigenous communities have their own way of theorizing their worldview and the externalities of the colonizing world. Within their expressions lies a wealth of ontologisms and epistemologies that they use to interpret their local realities and mythologies. From a philosophical vantage point the !Xun and Khwe have a common school of thought that was interrupted extensively by colonial and apartheid regimes in their effort to modernize, Christianize and develop these people. Throughout the history of oppression, denigration and

objectification by the dominant culture be it western of within the territory these communities have lost their dignity and self-worth as an independent people. This neither changed nor improved among the !Xun and Khwe since they were relocated to South Africa from Angola and Namibia. This was discovered when analyzing the socio-economic and demographic characteristics in the study area in terms of age distribution, marital status, educational level, and occupation and in relation to the research problem. The following conclusion was reached with regards to the objectives set for the study:

Although age is not chronologically viewed by most of the respondent members of the communities those who provided chronological age used historical event from the community to determine their age. Majority is not sure and exact about their age. Age within indigenous communities is seen within the 'holistic person'. Birth is not date bound in study community and it was revealed in many ways other than the birth certificate.

Education is a necessity that most members of the respondent community valued. Education was viewed as a vehicle for social mobility and a means to achieve economic gains through employment. Language was seen as essential in controlling ideas, identity and perceptions about worldviews. Respondents' indicated that it becomes impossible for them to direct their future without controlling their language. The other subject that was looked into was marriage. Role of

married people have changed over the years among the !Xun and Khwe communities. Wherein social expectations of married people have adopted modernity but traditional values and norms were still observed. However, married men are no more expected to hunt but to get active in a wage economy.

Due to isolation that study communities experienced over the years from their original places in Namibia and Angola most community members were not employed in permanent jobs. Their income levels were very low. Majority of elders women and children depended on social grants. They, therefore, continued to utilize their traditional practices to augment the low income. It came out from the study that the social grants were not sufficient to provide for both the medical and food security of many households.

An investigation into the respondents' attitudes towards the role of indigenous knowledge systems and associated local resources for sustainable livelihoods showed the following:

- The !Xun and Khwe communities also desired and wanted to benefit from the democratic dispensation through provision of housing, water, electricity and other amenities which the state provide the general population.
- The !Xun and Khwe had changed their way of life both voluntarily and by circumstances beyond their control to a point of assimilation to western modernization. Their attitudes towards their current environment differed from person to person based on where the

respondent grew up, which clan she or he belonged to and under which conditions she or he was living. Although social structures and family relation have once again been affected many families, it appears that they were at a permanent destination with no prospects of being removed in the new future. This was because of the infrastructure that the government had put up at Plaatfontein as opposed to Schmidtsdrift.

Conflict was common among the different members of the community and the two communities themselves. In some cases such conflict involved the larger part of the two communities. The mechanisms to resolve conflict that existed over the years is currently undermined with more cases referred to the police for arbitration or left unreported at all.

- The study also explored the conflicting relations towards western modernity and the sustenance of local knowledge in the face of globalization. The respondent members of the two communities were in a situation whereby their inability to communicate with the outside world and relate to it in the culture of such a world out there disadvantages them in many ways. The disadvantage was that they did not posses the western modernity as expressed in education and training. They found their skills made irrelevant by the many removals they encountered over the years. Basic needs had changed from depending entirely on the veldt products to a mixture of social grants and western modern life style in which occupying wage labour post became more essential than hunting.

- The study looked at the social structures that are used in the communities as part of ensuring the development, stability and general well being. There were numerous structures that were newly established to look at the interests of the two communities jointly and separately. These included those that looked into policy, protection, and development, networking and representing the general communities in matters that affect them. Participation in policy is important for these indigenous \communities. These indigenous communities are calling for a better government policy coordination and involvement in all matters that concern them. Respondent members repeatedly stated that those in charge of policy research and policymaking should consider that policy is not an end in itself. There are people who might have been excluded in the process of drafting such policies and who later are expected to implement and coordinate. Unless those affected by policy needs and those affected by policy implementation become part and parcel of the drafting most of what the experts inputs as throughput end up silently rejected and not implemented.

- Commùnity involvement and ownership of the research process came out very clear in that respondent members of both !Xun and Khwe realizes the significant role that they can play in influencing research.

- There were different areas within the research community that needed protection. These included: indigenous knowledge itself; local resources; indigenous language; cultural heritage and practices; performance and craft. Protection of indigenous knowledge and related

technologies is a social phenomenon. This was so because indigenous communities should be included in the creation of a favourable environment for them to enjoy their livelihoods. This could be done through participation in drafting of national policies that respect, preserve, and maintain knowledge, innovations and practices of indigenous and local communities. Such communities embodied traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of holders of such knowledge, innovations and practices.

6.2 Recommendations

After a critical consideration of the research results and the conclusions reached the researcher came out with a number of recommendations for the study communities, individual researchers, organizations and governments within the Southern African region.

The purpose of recommendations is for these different agencies of development in the region and South Africa in particular to implement the research findings for the benefit of the study communities. Recommendations are shared values and from an indigenous vantage point possible areas for social change or awareness to remain committed to indigenisation and Africanisation process. It is from these epistemological interventions that research recommendations

should be understood as a deliberate move away from the mere process of report writing.

The following aspects are recommended:

- Researchers should be sensitive to the interest of indigenous communities as participants and co-owners of the whole research process including research results;
- Researchers in those communities should acknowledge the use of narratives as methods of collecting and interpreting data among local and indigenous communities;
- Narratives should be considered as methodology for research because they help to explore the personal experience of the community members in relation to the research problem;
- Policy makers should not only consult but should involve indigenous communities as beneficiaries, in the whole process of policy formulation and implementation. As beneficiaries and implementers of policy they need to own and identify themselves with the policy and research agenda;
- Access to Benefit Sharing (ABS) models should be established between respective governments in Southern African region , especially South Africa on behalf of the practitioners and holders of IK and the private sector involved in research and development;

- The !Xun and Khwe communities have epistemologies which are diverse and should be considered by all outsiders as heterogeneous. That their worldviews and interpretations of both the exogenous and endogenous influenced by their different cosmic and cosmology. It is henceforth recommended that their diverse worldview be acknowledged and they not be cluster and treated as San or Bushmen whilest other local communities are given the opportunity to belong and be recognized as ethnic grouping with distinct features of cultural practice;
- The lifestyles of !Xun and Khwe have been affected positively and negatively by historical events. It is therefore, recommended that in dealing with these communities outsiders should consider the historical factors that shaped their current lives.
- As a result of the same historical factors, access to natural resources especially land for sustenance has changed drastically among the respondent communities. The governments of Southern Africa should make land be made available for them so that they can resuscitate these indigenous cultural practices to prevent their extinction;

- In the process of formulating policy and legislation related to these indigenous communities a profile of their indigenous knowledge systems and related technologies should be made so

that informed policy decisions which take into account their life realities are made. Communities prefer a multiple protection system that begins with imperatives that eradicate poverty, bring back human dignity and redefine their socio-political stand to the general population.

- The attitudes of the !Xun and Khwe are a microcosm of the position and views held by Basarwa in Botswana and other San communities in the Southern African region. What is recommended is that further studies be conducted among the !Xun and Khwe communities on health and educational needs; food security and household hygienic profile. A digital databank be established at national level to record and make available where possible the information among local communities.
- Finally the Southern African governments and South Africa in particular should pass *in suti (national)* legislation and develop IKS policies that are in support of Convention of Biological Diversity, International Labour Organization (ILO 169) organization. These includes legislation and policy which should be a broad base consultation processes.

6.3 BACKDROP

'The false consciousness distorts the reality' Edward Said

Introduction

It is not acceptable in the western modes of learning to challenge the epistemologies and fundamentals of teaching. However what Paulo Freire has taught me is that it is better for a learner to set up a route that later in life will be claimed solely by him. Not to be called a product of teacher so and so. The challenge of teachers reproducing themselves from students and student mimicry their teachers and caricature them to their graduation day is irrelevant. In the struggle to disengage with this 'my products mentality' I broke away from the courses and subjects that my teachers and mentored mastered. I moved to a new ground that proved to be a challenge not only to myself but also to those who were suppose to provide guidelines and supervision. Now in this day and age of globalization and information and knowledge highway it is difficult to lay total claim as the producer of students. The knowledge era challenges all areas of learning. Institutions of learning remain learning organizations and knowledge production central challenge especially at universities.

I provide a backdrop for this study so that the reader should have an understanding of issues that influenced the methodology and epistemology of

this study. The reader should come to terms with the paradigm shift in research and relationship with those communities that we excluded from setting research agenda. The backdrop intends to serve as a place that will remain even after the actors have gone off the stage. I had many personal challenges and professional ones since I engaged myself (consciously so) with matters indigenous. I had to move from the left line to the right in a race started many years ago in Europe. The whites always won the race of getting the research results first and influence policy and legislation later. Such a rat race has left many indigenous communities without dignity, without language, without land, without a historical reference since such people were forced removed and left in lands far away from their ancestors roots. The process of doing IKS has being labeled and misconstrued by other for other gains other than the return of heritage to those who lived it, still live it and use it for their survival.

Doing research and related studies in IKS has been an act of revolution and 'intellectual violence' for me. I crossed boundaries of other disciplines and made fundamentalists angry when I called for indigenisation and Africanisation. The challenges of shifting paradigms and repositioning the colonized to the mainstream have never been an easy task. Not only holders of university degrees but practitioners and mentors of the village child should maintain the revolution of mental emancipation and intellectual freedom.

Encountering self-knowledge

"Foregrounding IKS requires a clear-eyed analysis and appreciation of the magnitude of the challenges and the need to be focused, dedicated and strategic in all our endeavors." Pitika ka Ntuli 2004.

It is difficult to draw a conclusion on work that has taken over four years to complete moreover the type of work that has 'staunch commitment to breaking with Africa's apartheid and other post-colonial intellectual forms of servitude'. The work that 'attempts to lambaste the binary subject-object model inherited from the Cartesian cogito. It is this euro centric thinking that justified the western civilization and discourse. Many scholars, who came before me, young and old, struggled with this binary thought that contributes to the construction of alterity and justified the western colonial assault on the local traditions. Self-centered personhood and rationality along side with objectivity, validation and methodology were used as mono-thesis to expropriate and vulgarize the African ways of life.

Since outstanding scholars including Valintine Modumbe, Cheikh Anta Diop, D.A Masolo, Paulin Houtondji, and many others levied the early 70's criticism against western ways of rationality were cited in this thesis. Their mission was unreservedly known-'to develop an African philosophy not deriving from Cartesian thinking.' Results from their work shows that there will always be a mirror of colonial modernist thought filtering the liberatory ideologies of development, democracy, research and progress: 'emphasis on knowledge construction 'from below', however, denounces imperial claims to orthodoxy 'from above'.

Whiles undertaking this study it became clear that colonial and apartheid ordinances were undoubtedly constructed to ignore indigenous knowledge and customs and only paying attention at labeling them anti-social, void, superstitious, and idolatrous. In the words of Devisch 'colonial powers established itself by localizing, trivializing, and driving the wedge between neighbouring societies and cultures. Tribes were defined merely as homogenous, static, and possessing nothing more than local units of language, culture, identity and religion.'

This study demonstrates that local and indigenous cultures should not suffer these labeling and denigrations even the colonial threats. The fact is that the study revealed that indigenous cultures will continue to prove themselves very complex and dynamic in terms of utilization of local/ indigenous knowledge and related technologies for provision of livelihoods for the community and share it with the outside world. Indigenous cultures still posses' resistance and thus respond in their own way to policy, development, research agendas and economic dynamics and trauma of psychological wars.

In the past yearş I was involved in knowledge production in various areas of indigenous knowledge systems. I have encountered staunch holders of Western epistemology who saw no space for an indigenous epistemic expression in what they taught and researched. Such a position made me gather the intellectual energy that was later displayed in the Motsweding FM radio programme "Tsa Tumelo"; Kaya Fm and SAFM. I spoke and addressed many conferences where advocacy was central to all the debates. I want to

draw the reader's attention to the conclusions that I made during this journey 'for the emancipation of the out of focus' as Aryan Kaganof would say.

The few annexure to this thesis contains some of the publications I made infavour of an Afrocentric and Indigenous perspective of knowledge production. In '**Where is the Grassroots**' it was found out that Eurocentric methodologies, including a dependence on English or non-local languages, ultimately limit the researcher in the quest for understanding the dynamic of knowledge production, utilization and dissemination. Researchers should be aware that indigenous communities are not homogenous, as many outsiders perceive. In dealing with knowledge traditions among tribal peoples or local communities, adequate recognition should be given their rights not to betray the secrecy and sacredness of many cultural practices.

It is therefore necessary to establish protocols for research carried out among indigenous communities. Such protocols should first of all be founded in the laws of the owners of the land. Ethical issues should be reviewed, much as the history of research should be reworked, as the need for an 'indigenised method' is pivotal. As long as tools and instruments of research, including the types of questions posed, are not worked out together with the indigenous communities themselves, the problem of understanding indigenous knowledge will persist. Indigenous researchers should be encouraged to form and work within networks designed for the exploration and implementation of new methods of gaining knowledge from their own communities, as well as to

provide guidelines ensuring the preservation of indigenous knowledge and the respect of its holders.

It is from these researched article, "Where is the Grassroots", that I gained an awareness of the limits of research methods that are based in positivistic schools of thought, including the Eurocentric epistemology that for many years has dominated the study of indigenous peoples, duly reported its findings to the master cultures and formed a master narrative about the subjects. It is a research methodology that is currently challenged by indigenous peoples in many parts of the world. Such a challenge is needed and should be used to bring to the academic arena the awareness of a need for the respect of the diversity and 'universality' of knowledge and the consequences of this for the colonial and Eurocentric epistemology.

In the final analysis, one concluded that the official modes of knowledge production have been socially constructed so as to become a mere monopoly of specialist institutions from which most ordinary people are excluded. With the globalization of western development goals and processes, most indigenous cultures are being forced into programmes of modernization that tend to regard the acquisition of material goods as the central function of life. Here an anti-colonial and anti-positivist discourse is required that emphasizes the power held by local knowledge and practices to survive the colonial and colonized encounters. The notion of 'colonial' is rooted in imposed relation and power inequities engendered by history, tradition, culture and contact. Anti-colonial theorizing rises out of alternative, oppositional paradigms, which

are in turn based on indigenous concepts and analytical system and cultural frames of reference. A new theoretical approach should acknowledge that every mode of knowledge is constructed differently although all knowledge forms and discourses are heavily coloured by situations and relations to power.

Fatnowan and Picket (2001) sums up the outcomes of liberation thus 'in addition from domination, there is, in our case, also the danger of neo-colonial exploitation and appropriation of indigenous knowledge systems from the active and re-constructed remnants of the dominance systems before partnership and negotiation are effected in appropriate ways. Any engagement with IKS should recognize that the struggle for empowerment, self-determination, reclamation and custodianship of own knowledge, the right to speak and represent own-self and be the determining agents of development and choice of partnership.

All forms of negotiations and projects should move away from totalizing and 'othering'. Indigenous knowledge Systems are not a new Bantu Education wherein the Black and White scholars unconsciously or consciously bring the failures of the old system back to the curricula. It is not an exclusive BLACK and RURAL epistemic engagement. My observation is that there is an emerging group that wants to appropriate IKS without negotiating its space with those who lived it outside the university. Indigenous Knowledge Systems should not be an area of teaching for salvaging those lecturers and scholars whose conventional western courses based on ethno-this and ethno-that are losing students enrollment or funding. It should not be that IKS becomes

another Bantu-followed-White lead area of study. It should not even be an exclusive Black area. It should be inter-phased with other knowledges.

There should be a philosophical understanding of the psychological war that was waged against this knowledge. It should be a clear understanding by those who want to work with and for the indigenous that they too want to be in charge of their destination. They have own interpretation of worldview, of democracy, of progress and of modernity. Therefore, those who want to contribute to the teaching of IKS should first be decolonised and re-schooled in the philosophy and praxis of being indigenous in the face of globalisation (c.f. **Colonial Education and production of rural misfits**-annexure). They should allow themselves to be connected to the inner sense of the indigenous struggles for utilization of own knowledge and languages; of own epistemology and of own cognitive understanding that IKS can contribute to the local and to the outside world. IKS can be integrated with other knowledges once the teacher and the learner understand its significant role in the liberation of the self from the dominant other. Therefore to use Bantu education philosophy in research and teaching indigenous knowledge is not only disadvantaging the IK epistemology it in fact destroys the very freedom we fought for and liberation gained. I appeal for a serious self-inspection and interrogation by any prospectus scholar in IKS. In Fanon's words 'unless national consciousness at its moment of success was somehow changed into a social consciousness, the future would hold not liberation but an extension of imperialism'.

Linda Smith sums it well 'scientific and technological advances of this century place indigenous peoples and other marginalized and oppressed groups at

extreme risk. The mix of science, cultural arrogance and political power continues to present a serious threat to indigenous people.' This research was an attempt to place indigenous views in direct opposition to western values. Even though we talk of 'post-colonial' for the indigenous communities colonialism is not a finished business not when it comes to the search for elixir of life, cures for western diseases new meaning to life and learning by the Western scientific community.

The are many debates about who is indigenous and who is not. I have been part of these debates and came to understand the extent to which colonization has damaged the first occupants of the territories in South Africa. That caught in defining who is an African to who is Indigenous has left the South African government with incomplete work on defining indigenous.

In discussing the element of indigenous and indigenousness I concur with Natalia Alvarez (1999) :

As it is true for other concepts, it has thus far proved impossible to arrive at a commonly accepted legal definition of 'indigenousness'. Different terminology has been used: the term 'Native' refers mostly to the origins of an individual; it is often used in North America where also the term 'First Nations' has been used to recall the definition employed in last century treaties. Native was used in South Africa to refer to Blacks/Bantu until the white regime realized that it was alienating itself from the country they wanted to lay claim on. The non-European was then used as part of separate development.

The term 'Autochthonous' comes from geology language (the qualification of land), so autochthonous peoples are the ones leaving in the same land since

immemorial times or so considered. It is the qualification more used in French (autochtone) for indigenous people and the second part of the word, in Greek means 'the land'. In the Anglo-Saxon literature the term used more frequently is 'Indigenous', that in English carries strong connotations of authenticity, belonging and time honoured prescriptive rights. Some indigenous peoples prefer a term 'Aboriginal', term used in Australia, since it seems to qualify much clearly the condition of colonial-like dependence from a national State, even if the administration of this latter dates back several centuries and it is not colonisation in a strict sense. Internal law was used in this thesis to define "indigenous".

The challenge for intellectuals whose duty and responsibility is to advance the course for recognition and legitimization of indigenous knowledge I call upon them to revisit Edward W. Said (1994): "For the intellectual the task, I believe, is explicitly to universalize the crisis, to give greater human scope to what a particular race or nation suffered, to associate that experience with the sufferings of others." The same is said differently though by Paulo Freire (1993: 133) : whether orban or harsh, cultural invasion is always an act of violence against the persons of the invaded culture, who lose their originality or face the threat of losing it...the invaders choose, those they invade follow that choice –or are expected to follow it". By choosing not to follow my promoter and myself used this study as a bucket into which we pured all the frustrations we were faced with all the years in following a Western epistemology and avoiding to study with our own people. During the years of writing this thesis I differed terribly with my promoter on a number of

fundamental indigenous concepts and expressions, on methodological issues and writing style, on disengaging with cultural dominance that is so prevalent in sociology and anthropology. In fact all these difference were a semiotic way of moving away from following the invader.

The journey of producing a narrative methodological approach and tool of analysis from an indigenous perspective become a relieve for both the study communities and the researcher. According to Mr Tomson Nore of the Khwe, who is working as coordinator of research and development among the !Xun and Khwe, I become the first Black person to do a study among the two communities since time immemorial. "No person'', he says, "ever made us proud in his study by involving us from the beginning to the end and made sure that the recommendations and the write up reflect our expression, notions and frustrations.'' Mr Nore acknowledged the study as first of its kind to have a joint voice between the researcher and the people researched.

It is, therefore, pivotal for me to indicate that it was, as stated in the opening, not easy to depart from the road commonly traveled and break the ground in Indigenous Knowledge Systems as the first scholar to be awarded a Doctor of Philosophy in this very area of study in South Africa. This backdrop provides a space and fills it up simultaneously- a space that was emptied by Bantu education and colonial theories that make us less of a people capable of researching and writing, publishing and teaching about our own historical greatness. This backdrop falls squarely on the shoulders of colonized research methodologies and researchers. It calls for a return to respect for Afrocentric epistemologies and narrative methodologies that for many centuries were as Mogomme Masoga, in his report as external examiner, says: 'this study bring

to us knowledge which has been silenced and marginalized for far too long. In attempting to heal an extremely divided and dislocated southern African polity, it is such research which opens the way to new understanding of humanity and community." KG Nkumane remarks : this (referring to this backdrop) makes the study unique. The Backdrop provides the reader with 'a personal journey 'of the candidate in the filed of IKS".

It is from this backdrop, without prejudice, that this study should be understood.

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ANNEXURE ONE

Research Questionnaire

Title : An Investigation into the Attitudes of The !Xun and Khwe Communities In South Africa Towards Protection of Indigenous Knowledge Systems : Implications for Policy and Research

Name of Community (Place): _____

District :_____

Ethnic Group:_____

Guidance to the respondents :

- Participation in the study is voluntary;
- All opinions are respected since they reflect the experience of the respondent;
- Confidentiality will be maintained hence no names are requested;
- It will be appreciated if all questions are answered;

1. Demographic Data

Please mark appropriate box with an (X)



1.1 **Sex** : Female ☐

Male

1.2 **Age** : 15-24 years ☐

25-34 years ☐

35-44 years ☐

45-55 years ☐

55+ ☐

1.3Place of Birth

1. South Africa ☐

3Angola ☐

2. Namibia ☐

3. Other Specify : _____ ☐ _____

1.4.Educational Level

1. Non-formal education ☐
2. Primary ☐
3. Secondary ☐
4. Tertiary ☐
5. Other specify _____

1.4 Marital Status:

1. Single ☐
2. Married ☐
3. Divorced ☐
4. Widow ☐
5. Separated ☐

6. Any other specify : _____

1.5 Occupation :

1. Community worker ☐
2. Self-employed ☐
3. Farm Worker ☐

4. Other Specify :_____

1.6 Income per month

1. Less than R 500 ☐
2. R 500 – R 1000 ☐
3. R 1000 – R 2000 ☐
4. R 2000 – R 3 000 ☐
5. R 3000 and more ☐

1.7. Size of household

1. None ☐

1. One ☐

2. Two ☐

3. Three ☐

4. Four ☐

5. Five and more ☐

1.8. Which Language(s) do you Speak?

1. Khwe ☐

2. ☐

3. !Que

4. ☐

5. Afrikaans

6. ☐

7. Portuguese

8. ☐

9. English

10. Other Specify : _____

1.10. Which of the above languages do you communicate comfortably?

1. Khwe ☐

2.!Que ☐

3. Afrikaans ☐

4. Portuguese ☐ ☐

5. English

6. Other Specify : _____

Questions related to Community Production, Natural Resources Utilization and related knowledge systems

1. What are the major basic needs of life for the members of the community?

Answer:

2. What do members of the community do to meet their basic needs?

Answer:

3. What natural resources do members of the community use to meet these basic needs ?

Answer:_____

_____

_____

_____

_____

_____

4. Where do they get these natural resources from?

a) Within the community ☐

b) Outside the community ☐

c) or Both ☐

5.What expertise (skills and knowledge) exist in the community to produce the basic needs from the existing resources?

Answer:

_____

_____

_____

_____

_____

6. What problems do community members encounter :

a. Production of basic needs; ☐

☐

b. utilization of natural resources

c. skills and knowledge ☐

7. What do community members do to solve these problems?

Answer:

_____

_____

_____

_____

_____

8. What influences from outside the community have affected your cultural ways of life including your means of survival?

Answer:

_____

_____

_____

_____

_____

_____

9. How have these influences from outside community affected your cultural ways of life including your means of survival?

Answer:

_____

_____

_____

_____

_____

10. Who is mostly affected ?

a. Youth ☐

b. Adults ☐

c. Children ☐

d. Women ☐

e. Elderly ☐

f. Disabled ☐

g. Any other Specify : _____

11. What community strategies are there to deal with these outside influences?

Answer:

_____

_____

_____

_____

_____

12. What structures are in place to implement these community strategies?

Answer:_____

_____

Questions Related to IKS Government Policy Challenges

1. Are you aware of government drafting policy regarding Indigenous Knowledge Systems? / Would you like to participate in policy formulation on Indigenous Knowledge.

   Yes ☐ No ☐

2. If yes, what aspects would you like to be included in the policy?

   a. Protection ☐
   b. Affirmation ☐
   c. Recognition ☐
   d. Promotion ☐
   e. Development
   f. Other ☐

g. All of the above

3. Would you like to participate in the formulation of policy?

Yes ☐ No ☐

4. If yes, I would like to participate as

a. Practitioners ☐
b. Holder of knowledge ☐
c. Traditional leader ☐
d. Community leader ☐
e. Student ☐
f. Teacher ☐
g. Other? ☐

5. Did the recent settlement affect you?

Yes ☐ No ☐

6. If yes, which of the following was affected?

a. lost of cultural memory ☐

b. lost of livelihood ☐

c. separation of families ☐

d. lost link to ancestral land ☐

Questions Related to Research Protocols

1. Do researchers discuss the following issues below, with you when they visit to do research?

a. Prior informed consent to conduct research ☐

b. Access to benefit sharing

c. How the research will be contacted ☐

d. Joint ownership of the research results/product

e. Dissemination of results ☐

2. If you answered yes to any of the above, please explain what was discussed.

.....

.....

.....

.....

.....

.....

.....

.....

.....

3. What would you expect researchers to do in future when they conduct research in your community?

   a. show respect for our cultural heritage ☐
   b. Request permission to conduct research in our community ☐
   c. Share benefits such as : ☐

      1. Training ☐
      2. Finance ☐
      3. Technology transfer ☐
      4. Result
      5. Other ☐
      6. Non of the above ☐

4. Have you or your community benefited from any research done?

   Yes ☐ No ☐

5. If yes, how did your community benefit?

   ☐ a. Financially

☐ b. Technology transfer

☐ c. Training

☐ d. Equipment

Questions on colonization/apartheid

1. Do you consider Indigenous Knowledge Systems as important as Western science?

   Yes ☐ No ☐

2. If yes, what aspects of Indigenous Knowledge Systems do you consider important?

   a. traditional medicine ☐
   b. nutritional foodstuff
   c. animal remains ☐
   d. hunting and gathering food
   e. Spirituality ☐
   f. Other:

   .....

3. To what extent has the apartheid system affected

a. community's cultural way of life much ☐ less ☐ not at all ☐

b. belief systems much ☐ less ☐ not at all ☐

c. Family interaction much ☐ less ☐ not at all ☐

d. suppression of cultural practice? much ☐ less ☐ not at all ☐

4. To what extent can you now, under the new government, express your cultural

a. Beliefs Sometimes ☐ All the time ☐ Not at all ☐

b. Language Sometimes ☐ All the time ☐ Not at all ☐

c. Life style Sometimes ☐ All the time ☐ Not at all ☐

d. Practices? Sometimes ☐ All the time ☐ Not at all ☐

5. Do you consider that the colonial and apartheid policy are responsible for the loss of your bio-cultural resources?

Yes ☐ No ☐

6. If yes, which of the following do you consider affected?

a. Disrespect for the veldt ☐

b. Research plunders natural resources for personal gain ☐

c. Community losses natural resources to outsiders and its agencies.

d. Other:..... ☐

7. Do you consider that your knowledge system can help conserve the natural resources?

Yes ☐ No ☐

8. If yes, how?

a. Educating youth about nature conservation ☐

b. Making public presentations

c. Working with government ☐

d. Establish conservation committees in the community

9. Do you think your community can benefit economically from Indigenous Knowledge Systems and its related technologies?

☐ ☐

Yes No

10. If yes, how?

a. Sharing knowledge on harvesting methods ☐

b. sharing seeds

c. planting indigenous food ☐

d. Other:.....

ANNEXURE TWO

BATSWANA INDIGENOUS CONFLIC RESOLUTION METHODS: A NARRATIVE

The interview was conducted in Setswana. The document is then written in the form of a Setswana narration. Narration, like other methods of research, is accepted as another way of revealing feelings, attitudes and indigenous knowledge. However, since this narration has been translated into English, it has probably lost some of its original nuances.

METHODOLOGY

The author has used both Mrs Masuku's knowledge and with his own knowledge and experience of African culture to understand African indigenous Conflict Resolution methods. An interview was used. All answers and the questions were recorded during the interview. Mrs Masuku answered mainly in Setswana with English used minimally. The answers were later transcripted to Setswana and written as a narrative. The author decided not to transcript and re-write word for word what the informant had said. The result became a document of narration of experiences by two people about culture. The Setswana transcript was later proof read and translated to English by other persons. This was to ensure that the author did not impose his own understanding of the narrative but allow a neutral persons to do the translation and proof reading. After that the author checked the accuracy of translations and only corrected grammar and concepts. Literature review was added at a later stage to bring in other peoples understanding of the subject matter.

She started by saying that "it is important to take into account that peace cannot prevail without mutual understanding, a willingness to listen to each other, mutual agreement, tolerance and acceptance each other. Before people can communicate with the aim of ending a conflict, they must know their weaknesses and accept that there is a conflict. Mutual agreement goes hand in hand with being merciful, kind, patient, and sympathetic. The aim of bringing peace will be useless if before negotiations people cannot accept each other. Being patient and accepting each other is the easiest way to coming up with a solution. That is why the Tswana method of conflict resolution takes so long before negotiations are reached for the resolution to be arrived at."

Different conflict deserves different arbitration

Different types of conflicts found within families, communities and countries require different approaches. Indigenous African approaches to conflict resolution often relate to settling disputes between spouses, particularly those related to divorce. Others are about cattle thieving, mischief among certain family members and the general public, marriage proposals, politics and power relations.

Bozeman (1976) debates that Eurocentric approaches focus on ensuring justice based on written objective norms; African approaches focus on conciliation. Conflict relating to dowry is positive in that its settlement brings and has intention of binding two families. The negotiation process takes time and at the end a big celebration takes place. During the wedding couples are told to be caring, forgiving, tolerant, loving, understanding, and

know exactly how they taught these children the required norms of life. They are the people who know exactly what the complainants need. After they have been called, parents will narrate the story the way they listened to it and how they tried to intervene. Then the mediators will come up with advice according to the way the story was explained. Once the cause of the problem is detected, a solution is reached.

Uncles (malome) and aunts (rakgadi) are important members of the family. While children are young their *malome* and *rakgadi* expected to teach them the required norms of life. The father' sister is the one who eases things and is believed to provide luck for her brother's children. She and the mother's brother (malume) are more important people than parents when it comes to problem-solving in marriage. Together with parents, they know very well that everybody can have a problem, but that people must be of help to one another. Africans believe that as people, they do not live in isolation. That is why they must visit one another and help one another. Everyone in the African community knows this.

Because conflict does not lead anywhere, mediators must be part of decision making. Thus the family at large needs to come together with the aim of finding a solution to the problem that affects them. Only those who know the basic principles and customs of the family are required to meet. Before they can start to try solving the problem, they first examine the vows of marriage if the conflict is between married partners.

According Mrs Masuku solving a problem needs some devotion and politeness. The way the language is used, including idiomatic expressions, proverbs etc, is an indication that mediators have full knowledge of dealing with problems and how to build a family, including the personality of affected person. Mediators are not allowed to be harsh/rude at the complainants at all. At the same time complainants are also expected to help themselves out of the situation by trying not to be stubborn.

At a later stage, when everybody is quite convinced that a solution has been reached, the person who is guilty will surrender and announce that he/she is wrong. During this time, parents can now be called and together with mediators will teach their children the required norms of life so that in future the situation does not recur. If there is no solution at this stage, parents will talk with the complainants making them aware of the hurt everyone in the family feels if there is no mutual understanding and co-operation between them. This is taken as the only way of appealing to the children to co-operate. Complainants will also be given a chance to express their feelings in relation to their problem. If the problem is not resolved this time, parents will have no option but to forward the issue to the clan.

At the clan, the elders then will have full responsibility to bring their wisdom to bear on the case before the matter is forwarded to the tribal ward. Once the issue is taken to the clan, it now tends to affect the whole community in spite of families. This now will be the time when complainants will experience formal prosecuting procedures as in a

Western court. The parents regard having their children being prosecuted as blight to the family.

Prosecution

According to Bozeman (1976.237) African arbitration proceedings are rooted in the demands of intrafamily relationships. It is taken for granted that the family head knows the parties, as well as the issue in contention and can be expected, if necessary – with the assistance of the elders or other members of the household – to settle quarrels; discipline those who misbehave and restore harmony in the group by exerting persuasion rather than imposing a verdict in strict accordance with customary law.

Mrs Masuku states during the prosecution by the clan, the following people are allowed to be present; *Bo-Malome, Bo-Rakgadi*, complainants, parents and two elderly people from the community. Each of the above mentioned people is considered to have experience and the ability to listen as well as to solve problems. You shall remember that all the above-mentioned people, except elders from the community, have had the opportunity to listen to what might have caused the problem. This is a serious stage where no one should take side with any of the complainants.

Since at this stage matter affects not only the particular families but now involves the whole community, the complainants are no longer seen as children of particular families but of the whole community. They are children of the community who committed a sin, and thus disgraced the community and shamed the whole culture of the community. At this stage, the issue is so serious that it will be examined more thoroughly so that other tribal clans may partake in finding the solution. At this stage the gender of a person is not considered a closely knit but the value of the community. The community's traditions and customs support this closeness of the community. Community's advisers become more significant in the resolution of the problem. Those who are attending the proceeding must be cool, willing to maintain the value of both the custom and tradition of the community. If at the clan there is still no solution that is reached the matter will then be taken to the tribal ward.

I will now use the exemple of the proceedings of the tribal ward that I once attended at Bahurutshe tribal ward at Gopane to gain experience and to research about the prosecuting proceedings that occur at the cultural court.

Proceeding at a tribal ward

To be prosecuted is not a good thing. A responsible person needs to realize it if he is wrong and ask to be forgiven. Nurturing a person's personality as well as his spiritual being is significant. According to the morals of human beings, we all know that if an older person has done wrong to the young, he or she must apologize. If this does not happen, one day the young ones might be tempted to do the same. On certain occasions

an individual might want to control others. That will not ease the situation to be solved, it would rather be forwarded to the tribal clan and tribal ward. We must not think that it is only this solution that is reached at the tribal ward, but many things and thoughts are raised and reached. Even though people think that the tribal ward is a place like a court of law, it is not the case. At a tribal ward, the prosecutions can be entertaining depending on the nature of the case. Sometimes jokes are passed and people will laugh.

The Bahurutshe tribal ward at Gopane runs like many other Batswana Tribal wards. Everyone sits in a circle with the chief at the centre. Sitting arrangements goes according to the clans and chieftainship. Other clans not close to the chieftainship sit a bit far from the chief. The arrangements do not imply that others are not important but it is a generally agreed tribal arrangement. There are some ways in which complainants are supposed to sit. Complainants do not sit together. Whoever launched a complaint sits on one side while the other sits at another side. Parents and the family members have their seats to occupy, and followed by community members. These seating arrangements are highly respected and are regarded as an important factor in bringing about a solution. Because of lack of equality among clans, people will sit according to their relation with the chieftainship. Though some sit next to the chieftainship, it does not mean discrimination against others. All have a role to play in resolving the problem. When the chief enters, the whole congregation will stand up as a sign of respect. The chief will then occupy his seat next to his father's younger brother and other clans close to the chieftainship. The people will then listen to all issues in order to find out what caused the problem. It will also be explained why the issue failed to be resolved first at home and at the clan. This is the time where serious attention is paid.

During the prosecutions, no harsh words should be directed to the complainants or neither should they be interrupted while they are still testifying. Among Batswana, the process of trying to find the truth is different from that of Western culture. In Setswana it is based on values, such as obedience, good manners. The language used at the trial has to show respect. The truth is not reached procedurally but according to many ways that include:

- Presentation of facts in a way that a complainant does not assume that she/ he is not guilty.
- Emphasis is placed on the truth since that will, in the end, help to build the nation, the community, and the families of the complainants.
- The way these people had been living together is considered.
- Being honest and well behaved is also a fact that is considered.

In short, humaness (botho) is the cornerstone of such hearings or trials. To illustrate the difference between the tribal ward and the court law a narration of the prosecuting procedure of the Batswana cultural court that once appeared in the English tribal court is provided below. The case occurred in1913 and was recorded by Obeng in the book

Eighteenpence in the year 1943. The objective is to illustrate that trial proceeding in the Western court is different from that of the African court.

The Trial of Konaduwa : African Procedural Law

In the story Eighteenpence published in 1943 one of the characters Konaduwa appears in court hoping to reclaim valuables and money which had been accidentally knocked into a river by a fellow passenger on a ferry ride. During the proceedings Konaduwa becomes angry and verbally abuses the court in general. The constable on duty orders her to be silent.
"she turned on him and said that if he had lost a hundred and fifty pounds through another's folly, would he like to be shouted at with 'silence'?"
At the constables insistence, she is immediately charged with contempt of court for insulting and abusing the constable. The Register reads the charge and immediately asks;
"...are you guilty or not guilty?"
'Is this what the English Court is like?' she demanded with astonishment. 'When a case has been tried, how can one say whether one is guilty or not. Even if the case has been tried, how can you expect one to pronounce judgement against oneself'. Tell the Commissioner that I cannot possibly answer that question'.

As a consequence the register formulates an additional charge and reads it, " That you on the fourteenth day of July 1913, at Asekwa, did speak against the established procedure of the British Court, and also against the District commissioner, who is the King's Judge. Are you guilty or not guilty?"
'If you ask me this question a hundred times, I will still make no reply. Even if I knew I were guilty I should never admit it and ask you to pronounce judgement on me. If I say I am not guilty, you would not let me go scot free, but if I say I am guilty, you will pronounce on me at once. The Governor sent you here to decide cases before you get your pay, and if you have not fully learned how to try cases, and want to ask me how you should pronounce judgement, you should go back to your country to learn properly and find out how to conduct your business, without perplexing a woman by asking her if she is guilty or not guilty.'

'I believe the accused it of unsound mind', said the Commissioner to Mr Jones.
Konaduwa is consequently sent to Accra for mental examination, fortunately sanity prevails and Konaduwa is found mentally sound and returns to the court only to be told that the contempt charges have been dropped.

Konaduwa's trial narration before an English court shows conflict and differences between procedures of African and European cultural courts. The manner in which Konaduwa conducted herself shows that he lacks knowledge of the procedure in English trial matters. Let us again go back to Kanaduwa's case and Western Courts. Using one's mother tongue helps a lot in revealing one's feelings in full. Sometimes a foreign language impedes what a person to say what he/she wants to say. Language can sometimes not be clear thus leading a person to be found guilty before a court of law. This happens often in the Westernised African courts.

In these types of courts, people are often asked to take an oath "So help me God", and to "speak nothing but the truth". This is done whether you believe in God or not. At this time a person finds her-/himself in a strange situation. What is strange among other things is when a person is asked to say whether he is guilty or not. Within the African

Culture, one cannot judge her-/himself, he/she is asked as to how his/her behaviour affected others. A person is then told that he/she is expected to be part of a family according to the wishes of parents and fathers' sisters and the moral lessons he/she was taught before marriage. Culturally, you don't just say things that do not develop moral values. You express those that bring peace and unite the family. You have the responsibility of speaking the truth that will unite the two families. You must also maintain the family and the community unlike the woman who refused to use mogaga after she had lost her husband.

What Konaduwa wanted to see was that her rights were respected and her culture was included in the proceedings of resolving the conflict. Instead of getting a solution to her problem, Konaduwa was regarded as an abnormal person since she questioned the value of the court that was prosecuting her. She was regarded as a person who lacked knowledge of Western civilisation. Such a situation affects many cases in the Africa where people still use their dialects in their daily lives. On the other hand, the tribal ward uses procedures which the people are part of, culturally. People you live together with are used to resolving conflict and to bringing peace, to neighbourly relations, respect and the experience of unity with humanity. People who do not know your culture and custom cannot be called to prosecute you.

If you are found guilty, there is no way that you can take revenge; rather you must have willingness for reconciling. Unlike in the Western courts of law where there is a judge, you cannot accuse anybody if you are found guilty. Not even the chief can be blamed for that. All the people, starting with the family, are part of a team to help find a solution. A person can get her/ himself into a serious problem if s/he knows that s/he is guilty but still refuse to admit it. This is sometimes realised after parents meet and discuss the behaviour of complainants. After failing to reach agreement with their children at home, parents will now sit alone and discuss it. This is the time when they advise each other and try to find a solution before the issue can be known to the community. They will try to convince as well as show the complainant and the plaintiff that to be publicly prosecuted is not a good thing.

In an African court there was no need for a lawyer or to appeal. There were people in court who made you aware of your weakness as a complainant. They would inform you through the use of idioms, proverbs, etc, that there's no ways you can win the case. Idioms and proverbs contain the wisdom of the nation, tribe or clan. In fact the issue was not to win the case but to bring peace and reconciliation. Reconciliation was a much bigger thing in the clan than having a winner.

Before he can comment, the chief first listen for advice from his father's younger brother. It is so important that before the issue is taken to the clan, attempts must be made to first resolve it. Those involved at the tribal ward try very hard to end the conflict and to bring peace to the families. They do this by showing fairness and sympathy to the complainants. Because every thing has an end, the conflict too will come to an end. As mentioned before, the chief occupies the seat in the circle. The clan brings information to the to the king,

knowing well about the Setswana saying that *" Lefoko la Kgosi le a gelwa masako"* . The king's word is respected.

Not every problem is thrown at the chief. It is the community's duty to try to solve the problem and then hand it to the elders and chief when it is not solved. Is it possible for a traditional court to give a wrong judgement? Yes. This results to an appeal to a higher ward in this case the tribal court that will include all wise and knowledgeable elders with experience in cases of similar nature. This is what in the indigenous worldview is regard as appeal. However, the tribal court should be seen as the high court where all dissatisfactions are resolved.

He who comes last is the winner

When researching the procedure of examining conflict resolution in the Batswana tribe, I realised that community elders do several things to bring peace and to maintain culture and custom. They try all their means to use their language when dealing with community issues. At all the times, the chief gets advice from elders and cultural experts. When he makes his comments, and dissolves the meeting, the chief shall have heard everything all regarding the trial. During the trial people make their comments on the issue, the chief listens attentively because he knows that his time to give a decision shall come. (The idea of 'judgement' is not part of the traditional trial). 'Judgement' assumes a fight with no chance of future reconciliation. The decision relies on all the points presented by the clans. When the chief gives his decision, he who is found guilty has nothing to do but to accept punishment meted out to him. In fact, it is not a punishment as such besides that since the court ascertains what the guilty party can afford according to his / her living conditions. Whatever a person can afford, being a goat, cow or sheep is welcome. Even though the chief's word is respected, he does not pass "judgement" without taking into consideration the comments and feelings of the clans.

Custom of reconciliation

After peace is established, there is a festival to show reconciliation. The main aim of both the parents and the clan in resolving conflict is to develop the personality of complainants and to reconcile them with their family members. The culture can develop the personality of a person; it can reconcile people and can also show co-operation between the family and the community. As a form of education in Botho, culture has its own way of solving problems and conflicts. As mentioned earlier, the family must have peace, mutual agreement, mutual understanding, and acceptance and know each other's weaknesses. In that way the community knows that working together is the basic procedure of co-operation.

The custom of warding off away with bad luck among complainants is practised after the conflict has been resolved to show appreciation. The occasion is also used as an opportunity for elders / parents to teach the complainants the moral values and norms of life as well as to remind them about the importance of peace and forgiveness. *Mogaga*

is used to end bad luck that can be suffered by the community if it is not prevented. With this *Mogaga*, one can wash his / her hands or feet. In the past this was done especially after people had been involved in war or conflict and it is done to show reconciliation. Water is still taken as a symbol of life and prosperity. All this indicates that resolving a conflict does not only end in words of reconciliation, but includes customs mentioned in this text.

Accepting blame

As mentioned early, if a person is guilty, he or she is required to confess voluntarily. After parents' discussion, they will then discuss the problem focusing on developing the lives of the children. When reaching that conclusion, what is considered to be important is what the children need to grow and why the conflict started. This will help a lot in finding out various facts about the factors causing the conflict. Parents can solve the weakness of being stubborn and not listening to parents, since they are regarded as leaders of their children or as mentors of any other child in the clan or community. But the point is a child remains a child to the eyes of the parents even if he / she is married.

Doing away with bad luck

The traditional herb called *mogaga* is an itching herb when smeared on the body of a person. If a person is found guilty at the tribal court, his/ her body is smeared with *mogaga*. The itching of his/ her body is a sign that s/he has done wrong to the community not to the person he was tried with. This practice is only avoided if a person confesses his/her guilt. The application of *mogaga* can change a person and encourage him/ her to cooperate since he/ she knows that the *mogaga* will give him a lot of pain and suffering. To be found guilty is not a good thing because it shows some carelessness and uncertainty in the family, the community and dents the pride of the family and community.

At the end of the trial, the gathering will appreciate the ruling made by the tribal ward. The gathering will then close by asking the gods or ancestors for rain to come down. This would be a sign of peace, prosperity and life. *Pula! Pula!* They will then shout at the end of the trial or any meeting of the clan or tribal ward.

CONCLUSION

To be prosecuted is not a good thing. A responsible person needs to realise it if he is wrong and ask to be forgiven. Nurturing a person's personality as well as his spiritual being is significant. According to the morals of human beings, we all know that if an older person has done wrong to the young, he or she must apologise. If this does not happen, one day the young ones might be tempted to do the same. On certain occasions an individual might want to control others. That will not ease the situation to be solved, it would rather be forwarded to the tribal clan and tribal ward. We must not think that it is only this solution that is reached at the tribal ward, but many things and thoughts are raised and reached. Even though people think that the tribal ward is a place like a court

of law, it is not the case. At a tribal ward, the prosecutions can be entertaining depending on the nature of the case. Sometimes jokes are passed and people will laugh.

However, it should be noted that some traditional conflict resolution efforts may be weakened by age or gender bias. For example, in cases with no women elders, some women may believe that male elders are biased against women and that this will be reflected in their decisions. It should also be noted that local conflict resolution's potential effectiveness may be diminished where traditional authority has eroded and armed authority has increased, since these trends run counter to traditional values and ways of social organisation, including those of handling conflict.

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ANNEXURE THREE

DE-INTELLECTUALISATION OF CIVIL SOCIETY: CHALLENGES OF PROTECTING INDIGENOUS WISDOM KNOWLEDGE SYSTEMS

De-intellectualisation of civil society: challenges of protecting indigenous wisdom knowledge systems

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The patenting of products and processes derived from plants on the basis of indigenous knowledge has become a major issue of conflict in the domain of intellectual property rights. The example of the patenting of Hoodia cactus by the CSIR and Pfizer may be mentioned. In this case, the result has been that the knowledge of the local medicinal plant, its uses and distribution, as well as ownership of its future development, have been lost to the CSIR and Pfizer. The lack of measures to protect the rights of indigenous people disempowers them from continuing to use communal and customary protective measures against biopiracy by giant capitalist companies. This is done in collaboration with structures in the countries that were meant to be the guardians of biodiversity.

This paper raises issues related to the need to protect the indigenous cultural heritage and its related knowledge production systems and technology, and to promote management systems that recognise indigenous methods. In responding to current global challenges to social development, indigenous people rely on oral tradition and historical and ancestral knowledge to make sense of events around them in ways that are continuous and consistent with their traditional worldviews and cosmologies.

Along with the process of biopiracy comes the whole process of de-intellectualising civil society. This poses a challenge to knowledge protection and management, which centres around the privatisation of knowledge and biodiversity. The privatisation of knowledge and biodiversity results in the devaluation of local knowledge, the displacement of local rights, and simultaneously, the creation of monopoly rights to biodiversity utilization through the claim of novelty. Even though monopolies exist in indigenous communities, the exchange of knowledge and seeds is free, including the knowledge of medicinal plants as a local common resource.

Introduction

The term 'civil society' is not without its problems. This concern places this paper in the realm of Gramsci's philosophy, with the 'uncivil' being those people that Hume met in Africa and found nothing to write home about. Columbus set off on a journey with a map in his hand, only to claim to have 'discovered' the Americas. It is a term contested by the missionaries that entered the 'Dark Continent' or the 'Heart of Darkness' story. It sounds like a liberal concept (to others) – the false notion that Western civilisation must be distributed, transported and spread to the 'uncivilised people' of the developing world. In spite of the pervasiveness of the liberal idea of civil society in both state and global political discourse, it is challenged by most non-Western scholars. Civil society is an ideologically charged ideal (Garland in Comaroff 1995: 73). The term is grounded squarely in the cultural and historical specificity of the European enlightenment from which it sprang. I hold a different 'overstanding' and understanding of the term 'civil society': knowing that civil society is a legitimate arena for social transformation and resistance, it cannot be a liberal term used exclusively by the dominant West to explain the conditions of the relatively disadvantaged within the world system – wherein others are labelled as either civilised or uncivilised. There exists a civil society among the indigenous people, the developing world from the time of ancient Thebes, 1275 BCE, through the reign of Cleopatra VII (51 -30 BCE) to the time of King Munza and the present !Kung and San tribes, who are said to be uncivilised on the grounds that they fight to keep their traditions and culture alive.

Attempts to convert and transform the 'uncivilised' resulted in the de-intellectualisation of their knowledge base, history, cultures and sources of reference. An end should be made to *terra nullius*, which served a dual purpose (Shiva 1997): *terra nullius* denied the existence and prior rights of original inhabitants, and it negated the regenerative capacity and life processes of earth. We are here to strip the dance to Francis Bacon, who is called the father of modern science, for whom nature was no longer a

mother, but rather, a female to be conquered by an aggressive masculine mind - "where nature was to be hounded in her wandering, bound in service, and made a slave" (Odora-Hoppers 2001)

Problem statement

The de-intellectualisation of the indigenous knowledge base has resulted in the suppression, underdevelopment, and lack of participation of indigenous languages in the management systems of freed people. The film entitled *Amistadt* bears testimony to the fact that slavery, like colonialism, disempowered the knowledge production of a people. It is through language that groups of people represent themselves. Language still remains a problem in the struggle for intellectual space. One of the limitations experienced in writing this paper includes the fact that the language used in this paper limits my experience and expression and compromises my African wisdom knowledge system based on indigenous languages. The challenges that indigenous people face today are rooted in the colonial system. I am operating in colonised gear, failing to reach the top gear of idiomatic, proverbial and ebonic expression that is so colourful in our indigenous languages. The challenge faced by civil society is first to raise our colonial consciousness, in order to understand and 'overstand' the nature of the damage. Then we need to elevate our African wisdom knowledge consciousness, based on the sub-conscious. We will observe that the legacy remains a painful experience the world over, wherever it was practised.

Colonisation of nature

When Europe first colonised the diverse lands and cultures of the world, it also colonised nature (Shiva 1997: 104). The transformation of the perception of nature during the industrial and scientific revolutions illustrates how nature was transformed in the European mind from a self-organising, living system to a mere raw material for human exploitation, needing management and control. With the rise of industrialism and colonialism, a shift in meaning took place. 'Natural resources' became inputs for industrial commodity production and colonial trade. Nature was transformed into dead and manipulable matter. Its capacity to renew and grow was denied.

Whenever Europeans 'discovered' the native people of America, Africa or Asia, they identified them as savages in need of redemption by a superior race. To carry Africans into slavery was seen as an act of benevolence, transporting them from the "endless night of savage barbarism" into the embrace of "superior civilisation". (Shiva 1997: 105). Denying other cultures their rights on the basis of their difference from European cultures was convenient for taking away their resources and wealth. The church authorised European monarchs to attack, conquer and subdue non-believers, to capture their goods and their territories, and to transfer their lands and property. Odora-Hoppers (2001: 5) states that relationships between people hold pride of place, best explained by the concept of *ubuntu*, which does not seek to conquer or debilitate nature as a first impulse. This can be contrasted, for instance, with the outlook of Francis Bacon and the mechanistic conception of reality that urged a passionately vicious approach to nature.

Greek philosophers accepted that, by virtue of possessing reason, human beings were essentially superior to all other forms of life. The crucial words are found in Genesis 1: 26, "Let us make humankind in our image, according to our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle and over all the wild animals of the earth, and over every creeping thing that creeps upon the earth." Genesis 1: 28 says of humankind, "multiply and fill the earth and subdue it and have dominion over … every living thing that moves upon the earth". Even though there are countervailing messages in the scripture, no late message from God retracts this command, and it therefore takes little imagination to see how Western culture might have used these verses to justify a boundless exploitation and conquest of nature. Contemporary developments have put into the hands of human beings the instrumental means of putting their ideas of superiority into practice. Bacon exercised immense influence in propagating the idea of a systematic investigation of nature as a boon to social development (Zeleza & Kalipeni 1997).

While modern societies are characterised by their anthropocentric, mechanistic and utilitarian attitude to nature, the various traditions within indigenous societies have intricate relationships with nature which reflect a keen sense of the interdependence of human culture and nature and involve a holistic ethic of respect for nature. Unlike the beliefs of the Judeo-Christian humanistic tradition, which generated views of the universe that sharply separate God and the world and humanity and nature, the

religious aspects of ethnomedicine generally encourage indigenous people to relate to natural phenomena with reverence and dignity. This conception of reality is the worldview according to which most indigenous people structure their world and experience. It is this conception that is constantly de-intellectualised (Zeleza & Kalipeni 1997).

Colonial neglect

Africa and other non-Western areas have long been considered backward and primitive by Europe. Ethnocentric European superiority created a set of thinking that looked with disdain at African systems even before colonialism, especially as part of the development of social science in the 17th century. Commercial and Christian Europe came to Africa with the missionary vision of civilising Africa. The systems that sustained Africa prior to colonisation were never approved of. There is clear evidence, however, that indigenous systems were deemed useful in supporting the colonial enterprise (Matowanyika, Garibaldi & Musiwa 1994: 58). The colonial economics and political system had the primary task of supplying resources to Europe. The African system was left to its own devices, but was expected to provide the labour necessary to establishing the colonial economy, through which it was incorporated into the international economy. This was the basis for the destruction of indigenous African systems. These indigenous African systems were undermined particularly by the introduction of European economic production systems.

Post-colonial neglect

Reliance on imported technology, and national planning and modernisation based on large-scale enterprise, have been major features of post-colonial development efforts, to the detriment of indigenous people, their knowledge and related technologies. There have also been similar approaches in rural development that promoted rural industrialisation and technology transfer to rural areas. Basarwa settlements in Botswana and South Africa alike were aimed at reorganised land use based on promoting the conservation of resources in the form of various social welfare programmes (Zeleza & Kalipeni 1997). Planning for these has been centralised, and ten rural groups and their indigenous systems were viewed as needing to be modernised or Westernised. National planning fails to view the indigenous social, cultural and economic systems constructively and to assign any value to them. Moreover, the African elite has little or no sympathy for indigenous local knowledge. For so long, running away from indigenous knowledge has been a mark of success, as have the assumilation of and acculturation to Western systems and lifestyles. The attitude of the African elite is probably the greatest obstacle to indigenous knowledge systems (IKS). Just as Chinweizi (1975) saw "African universities as road blocks to cultural renaissance", the black African elite hinders the development of IKS.

The !Kung tribe cited in Comaroff (1995: 77) had this to say: "Before the white people came, we did what our hearts wanted. We lived in different places, far apart, and when our hearts wanted to travel, we travelled. We were not poor. We had everything we could carry. No one told us what to do. Now the white people tell us to stay in this place. There are too many people. There's no food to gather. Game is far away and people are dying of tuberculosis."

That was in 1970. Now in 2001 we read the following: "In a radical about-turn, the San and Bakgalagadi people of Botswana are set to be given usage rights over 24 000 square meters of Central Kalahari and Khutse game reserve ... they will be allowed to carry out subsistence hunting on a quota system, will be free to gather veld food, will be actively involved in environmental monitoring of the sensitive Kalahari ecosystem and will be encouraged to launch cultural tourism initiatives. This follows years of attempts to dispossess them of their land, which have included forced removals, assaults and the denial of basic services and human rights."

In the case of the northern Cape, the !Khomani tribe has being living in makeshift tents for over ten years. In the North West Province, at Prompfret military camp, former Koevoet recruits from Namibia and Angola are without basic services and are largely unemployed. The conditions of dependency on foreign methods of resolving local problems are, as already noted, rooted in the colonial consciousness. Until we undertake a journey to decolonise our minds and reclaim the voices of a non-colonised ancestry based on Afrocentric wisdom knowledge, our problems will be problems awaiting a Western solution. The attitude of doctors and medicine comes from the West. A conquest by naturalisation, as experienced by African people in general, including South African Africans, remains a stigma – a signal of an erased intellectual space.

When the Western world dispossessed, misplaced and conquered the indigenous people, it removed people's knowledge about indigenous governance and management, and generally their knowledge about cosmology and nature (Diop 1987). The colonial powers destroyed the point of reference of indigenous wisdom knowledge systems. While indigenous 'knowledges' are characterised by the absence of colonial and imperial imposition, such knowledges emerge in the contemporary sense partly in response to colonial and 'postcolonial' intrusions. In other words, indigenous knowledges are emerging again in the present day as a response to the growing awareness that the world's subordinated people and their values have been marginalised.

The problem currently experienced by indigenous and tribal people is that of de-intellectualising, dispossessing, expropriating, discriminating and, above all, misleading. It should be noted that indigenous people were guided by a worldview based on the following: seeing the individual as part of nature; respecting and reviving the wisdom of elders; giving consideration to the living, the dead and future generations; sharing responsibility, wealth and resources within the community; and embracing spiritual values, traditions and practices reflecting connection to a higher order, to the culture and to the earth. Without these guidelines, we will not be able to run our businesses, our families, our relationships, our schools, our ceremonies, our communities and our 'Africanness', based on being and oneness.

Despite this colonial onslaught, the society (which colonials call uncivilised) is now hunted for their 'civilised ways' of managing biodiversity and natural resources and for their political lifestyles. It is clear from this hunt launched by TRIPs (Trade Related Intellectual Property Rights), the World Trade Organization (WTO), the Global Agreement on Tariffs and Trade (GATT) and private pharmaceutical companies that the civilised Western world was never civilised in the first place. Let me prove my point! Commenting on the history of the Dogon, the ancient Egyptians and the Bakalanga of sub-Sahara, Cheik Anta Diop and Obenga tell us that anthropology, philosophy and archaeology indicate that world civilisation took root in Africa, and that Europe was thus taught by Africa in most, if not all, matters 'civil'.

The challenge that Egypt faced in 51 BCE, after the reign of Cleopatra, and after colonisation and slavery, brought about a number of perpetual conflicts with indigenous religious practices, and the application of a 'rationalist interpretation of ecology' in the form of modern forms of land conservation and animal husbandry. Such a move affected the moral and communal basis of indigenous people, including the bureaucratisation of chieftainships, which considerably weakened the political support of indigenous people. The alienation of land drastically changed the structure of social organisation and pre-conquest settlement.

European missionary activities led to the rejection of traditional beliefs, rituals and other non-Christian observations that form an integral part of ethnomedicine and the designation of sacred spaces. Christian teachings and Western civilisation created new attitudes, value systems and expectations among potential adherents of the African wisdom knowledge system, and African traditional religion in general (Zafeza & Kalipeni 1997: 142). The denigration of folk cultures and the disappearance of indigenous medical practitioners not only pose a problem for the future practice of ethnomedicine, but also the protection of biotic communities that serve as sources of indigenous medicine. With the loss of indigenous people, their knowledge and related technologies are also lost. Once the indigenous people have disappeared, their body of priceless thought, medicinal knowledge and value systems, painstakingly acquired and built over thousands of years, will disappear forever.

On the question of protecting the indigenous knowledge of our endogenous people, Shiva as this to say:

> When indigenous systems of knowledge and production interact with dominant systems of knowledge and production, it is important to anticipate whether the future options of the indigenous system or the dominant system will grow. Whose knowledge and values will shape the future options of diverse communities? The answer is difficult to find, because many of us tribal people have taken so much from the West that our intellectual capacity cannot function outside the colonial consciousness. De-intellectualised, detribalised and assimilated! That is what we are. Our senses have been distorted. We have lost the sense of taste for our own indigenous food, we have lost the sense of seeing

> our beautiful landscapes vegetation and animals; we have lost the sense of hearing our birds, animals, winds, songs and the cries of our children; we have lost our senses of touch, to feel the texture of our artworks, fractals and designs on walls and mural works – the touch of our own children has been stolen or sold to strangers (Shiva 1997: 72)

We have lost contact with our senses; we cannot distinguish the different smells of herbs, trees, sweat and soil after a good rainfall. We are people with no senses of their own – trapped in borrowed senses, to make sense 'outa no sense', as London-based poet, Linton Kwesi Johnson, would say. As academics, can we make sense of the dangers that the present as 'the place to be' is presenting to the poor through biotechnology and the de-intellectualisation of society?

A failure to understand the human-modified nature of 'wild' landscapes, including those that are currently sparsely populated, has blinded outsiders to the management practice of indigenous peoples and local communities. According to Ellen, Parkes & Bicker (2000: 36–37), many so-called 'pristine landscapes' are in fact 'cultural landscapes', either created by humans or modified by human activity, such as natural forest management, cultivation and the use of fire. Much of the world's crop diversity is in the custody of farmers that still follow age-old farming and land-use practices that conserve biodiversity and provide other local benefits. Among the benefits that were based on African indigenous management systems are indigenous diet diversity, income generation, production stability, minimisation of risk, reduced incidence of insects and diseases, efficient use of labour, intensification of production with limited resources, and maximisation of returns under low levels of technology. The West and African elites should respect indigenous knowledge, cultures and traditional practices, which contribute to sustainable and equitable development and proper management of the environment.

The failure by the West to take into account the coexistence and interconnections between both empirically and symbolically motivated criteria within any system of knowledge inevitably leads to limited understanding, and perhaps even a fundamental failure of understanding, about how indigenous knowledge operates and how it is situationally successful (Ellen et al. 2000: 26). Given such observations, what is the role of intellectuals in a postcolonial colonial society of systems of government, as opposed to indigenous space and time practices. The types of intellectual referred to in this challenge to indigenous knowledge production and protection, management and practice are defined by Gramsci (in Said 1994: 3):

- Firstly, traditional intellectuals, such as teachers, priests and administrators, who continue to do the same thing from generation to generation
- Secondly, organic intellectuals that are actively involved in society – that is, they constantly struggle to change minds and expand markets; unlike teachers and priests, who seem more or less to remain in place, doing the same kind of work year in and year out, organic intellectuals are always on the move and on the make

In order to reverse the process of mental colonial consciousness as the basis of seeing the world, indigenous people and tribal people should cultivate real intellectuals (through a radical transformatory education and training, based on history, technology, science and indigenous multilingualism), who will uphold eternal standards of truth and justice that are precisely not of this world, Western epistemology or the science worldview – those that take the outlook that 'my kingdom is not of this world'.

Knowledge produced by Ancient Egypt, Monomotapa, Thulamela, Mapungubwe and the kingdoms of Mali, Tibanktu and many others was stolen by Europeans. This knowledge and its related technologies were later repackaged and sold to Third World countries. The knowledge that was used to build the cities of the Dogons, the Zimbabwe ruins and the rock art of the San has gradually disappeared from the knowledge-holders to the colonialists. Through a systematically disempowering education, tribal people lost ownership of the objects of their cultural heritage and the knowledge related to its technologies. Africa lost the sense of her originality, a reference to her greatness in history, medicine, architecture, cosmology, mythology, philosophy, Kemit-studies (chemistry) and many other specialisations. We have lost our voices – our own children's cries cannot be heard, for we do not know how they sound. The question is, where are the intellectuals of indigenous wisdom knowledge when the indigenous system is so beset by with problems?

Problems of indigenous systems

Locals that are educated in the West have little understanding, let alone an 'overstanding', of the base of indigenous wisdom systems, the subconscious consciousness. The following problems challenge intellectuals that try to participate in the indigenous knowledge process:

- Many local people are obstacles themselves. They regard non-African systems as superior and deliberately seek to replace them.
- The lack of systematic records, means of transmission to other societies and common measurement make these systems vulnerable.
- IKS are easily degraded, especially when inter-generational transmission does not take place.
- In many cases, there have been so many changes that indigenous knowledge systems are no longer easily identifiable.
- Language barriers increase obstacles to understanding, particularly by outsiders.

Several indigenous systems have tenaciously survived these problems, in Africa and elsewhere.

Civil society should be informed about the dangers to intellectual property. To avoid intellectuals from being obstacles to the African Renaissance, or the African Renaissance itself from being the obstacle to indiginisation towards endogenous wisdom systems, civil society, especially elders that have not been brainwashed by colonial education and colonial consciousness, as manifested in Judaeo-Christian principles, should speak out against what is called *tejwale jwale* in seSotho. Elders as intellectuals within IK are at times also trapped by colonialism. The protection of their indigenous environmental knowledge should observe the use of market mechanisms for managing and conserving environmental resources (which presupposes two things):

- Converting environmental resources to commodities
- The assumption that the market will be an effective means of achieving conservation.

Granting intellectual property rights is therefore a familiar method for converting public goods into private ones. Protection is given for a limited time, allowing the owner to exclude others from selling the variety during that time (Brush & Stabinsky 1996). Breeders and farmers are not recognised by utility patents. TRIPs and GATT allow nations to design *sui generis* plant protection methods that adopt legal elements from industrial countries. Conformity with the prevailing modes of plant protection make it unlikely that public goods will be protected by intellectual property. The logic of intellectual property is to stimulate conservation as part of a profit-making scheme. The breeders' and farmers' exemption under plant variety protection means that a farmer or group that claims ownership of a local variety may receive little benefit from geneticists that use it to breed a new commercial variety. This in a disempowering and de-intellectualising business.

Shiva (1997: 74) notes that it is important to view bioprospecting in the context of markets for patent commodities in the agricultural as well as the health sectors. The same corporations that prospect for the commercialisation of biodiversity also displace economies based on alternative value and knowledge systems in order to expand their markets for seeds, biopesticides and pharmaceuticals. Furthermore, when indigenous communities are asked to sell their knowledge to corporations, they are being asked to sell their birthright. This is de-intellectualisation of civil society, dispossessing them of their right to their intellectual property.

The San, Hoodia and biopiracy

South African is not exempt when it comes to de-intellectualising its civil society – its indigenous peoples. Recently, the San were in the news, challenging the right of commercial interests to profit at their expense (*Time* and *Mail & Guardian*). The !Kung tribe, which had been denied access to its natural resources in the 1970s, had to battle through a law firm to prevent their intellectual property from being lost to Pfizer and Phytopharm (a small firm in Cambridgeshire). Phytopharm announced that it had secured the rights to a potential cure for obesity derived from an African cactus, Hoodia. The right to commercialise Hoodia was reported to have been received from the Council for Scientific and Industrial Research (CSIR). The trade name for Hoodia will be P57, and returns of roughly R70 billion are expected on the drug.

Any attempt to adopt management systems from the West without the necessary knowledge of the outcomes can cause disaster, for example, projects such as the Green Revolution and Modernisation, which entail that traditional agricultural practices be replaced with mechanised Western practice that deliberately replaced the biological diversity of many areas with biological monoculture and uniformity (Lalibert, Setee & Waldram 2000; Shiva 1999) Moreover, the green revolutionary strategy unwittingly ensured that fertile and productive soils were actually laid waste; the land-augmenting technology has proved to be a land-degrading and land-destroying one. With the greenhouse effect and global warming, a new dimension has been added to the ecologically destructive effect of chemical fertilisers – nitrogen-based fertilisers release nitrous oxide, one of the greenhouse gases causing global warming, to the atmosphere. Chemical fertilisers have thus contributed to the erosion of food security through the pollution of land, water and the atmosphere.

The Westernisation of the world continues to undermine the intellectual property rights of indigenous communities, especially women. Until recent times, local communities, especially women, used, developed and conserved biological diversity, and were the custodians of the biological wealth of this planet. Their knowledge and rights should be protected. Globalisation of patent and IPR regimes is an expression of the economic paradigm that has caused ecological destruction and contributed to the disappearance of their wisdom knowledge systems, their songs, indigenous art, medical knowledge, poetry, environmental management practices and traditional management systems.

Biotechnology and Biodiversity

The draft discussion document on biotechnology and biodiversity, by South Africa's Department of Arts, Culture, Science and Technology, poses a serious challenge for the future of indigenous people's rights to biological diversity and to contributing to sustaining life within their traditional norms based on wisdom systems. Biotechnology has a negative impact on biodiversity. Biotechnology is a Western-driven programme that is supposed to be based on the land of the indigenous people. This technology is also based on GATT, a multilateral binding treaty that creates a free market trade system throughout the world, to be enforced by the WTO. GATT, through biotechnology, allows transnational corporations to compete with local markets worldwide and sell products at lower prices, thereby driving traditional farmers and local industries out of business. The other danger is that TRIPs obliges countries to pass intellectual property legislation and requires signatory countries to establish patent protection for biotechnological innovation.

Such moves will affect indigenous communities that depend on natural resources and related technologies for socio-economic sustenance and their livelihoods, thus threatening to commercialise indigenous knowledge and genetic resources everywhere among indigenous communities. The example of Hoodia shows that medicine derived from indigenous medical plants will be patentable in all GATT signatory countries.

Lalibert et al. 2000 raise concerns regarding the use of indigenous people's knowledge, and the potential impact of the biotechnology industry on indigenous farmers. An example is terminator technology, which alters seeds, so that they will not germinate unless a chemical is applied. The seed-sterilising technology threatens to eliminate the age-old rights of farmers to save from their harvest for planting the following year, and it jeopardises food security. Terminator technology will prevent peasants from saving seeds, which are sold by American seed corporations. Such a licence to technology will give the multinational seed and agrochemical industry an unprecedented and dangerous capacity to control the global food supply.

Unless the public, the indigenous people, the peasants, the farmers, the villagers and the poor that use biodiversity for their livelihoods are made aware, in language that they understand, through intensive workshops and talkshops in all media, the process of introducing the biotechnology will continue to create a 'David and Goliath struggle'. South Africa needs her own national and village-based conferences on biotechnology in order to attend to the fears raised by indigenous people globally. Such doubts on the non-toxicity and positive role of biotechnology in the environment are the subject of great *indaba*.

Shiva (1997) laments that taking knowledge from indigenous communities through bioprospecting is only the first step toward developing an IPR-protected industrial system that must eventually market commodities that use local knowledge as an input, but are not based on ethical, epistemological

ecological organisation of that knowledge system. Producers of such commodities use biodiversity fragments as the raw material to produce biological products protected by patents that displace biodiversity and indigenous knowledge, both of which they have exploited.

By allowing a 'monoculture of the mind', we will be moving towards a society with no intellectuals to question the state, research institutions or learning institutions. We shall have buried the hope for a critical and yet progressive knowledge people in the future. This knowledge era does not create sufficient opportunity for civil society to be the best within its environment. By introducing a monopoly and patents to knowledge, closing to human life, secrecy, intellectual property rights and the associated commercialisation and privatisation of knowledge, the scientific community will be killed. That will be the end of creativity, the death of indigenous knowledge. IPR exploits creativity while killing its very source. Civil society is not kept informed on critical issues that will affect its life. Indigenous people should be critical of biotechnology and continue to lobby for research and insight into the African indigenous management system. The West should nourish the tree of knowledge, which is Africa, and indigenous communities and people the world over. Common sense tells us that if the roots of a tree are not nourished, it will die. The knowledge of our people is being harvested with its roots by the WTO and GATT, as well as in the cause of pursuing intellectual property rights. Western IPR, however, is not an effective method for nourishing the tree of African wisdom knowledge systems.

Conclusion

With memories of the United Nations Conference against Racism still fresh in the minds of many, we should use the documentation prepared for that conference to advance a mobilisation strategy for the tribal people, the indigenous people, the poor of the world to unite against the privatisation of knowledge. Borrowing from Findley: "In the name of culture, colonialism does its work and dignifies its meaning as duty and improvement and the exhilarating march of progress. There is a need, so urgent and ubiquitous today, for the cultural restoration of the colonised. The state of mental colonisation should be challenged."

The new struggle to protect our dignity, our cultural heritage, our knowledge , our elders, our environment, our mother earth and biodiversity has begun. We in the Third World stand against the terrorisation of poor people, and their world in general, by the elite powers whose interest is domination. So many environmental crimes have been committed by the 'super powers', to the point that we have stopped counting the deaths. Our innocent people have been denied a life that recognises their uniqueness of language living styles, and many other features, as expressed in the Rights of Indigenous People and ILO 169.

Recognition should be given to African management styles and systems to influence the crumbling developed nations. Afro-management styles are very effective. We as Africans should take the lead in placing issues of strategic importance on the agenda.

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WIMSA

Media and

Research

Contract

(general purpose)

of the San of Southern Africa

VIMSA

Working Group Of Indigenous Minorities In Southern Africa

Media Policy

VIMSA, as the organization representing the interests of all San in outhern Africa, has noted that:

The Media, driven by the interests of the public, have in the past and will continue to play a large role for the San.

The Media have, through film, television, newspaper and other forms, contributed to the erosion and loss of intellectual property belonging collectively to the San.

The lack of practical and effective control of the media has caused numerous problems for the San, including the perpetuation of negative myths, misinformation, exploitation of cultural music and performance, the loss of privacy and the loss of dignity.

Despite the problems attendant on uncontrolled media interest, including increased tourism with attendant social disruption, the San can and do benefit from appropriate and responsible media coverage.

Only the San, acting together in accordance with the agreed policies, are able to prevent the further erosion of their intellectual property and dignity.

herefore WIMSA binds itself and its member organizations to the following policy:

The San people alone should determine what information should be conveyed to the media, and under what conditions.

Only recognized San leaders, duly trained and authorized, are entitled to provide permission to individuals or organizations from any branch of the media, to publish information on the San.

6. Any individual or organization wishing to engage in any form of media transmission, whether of film, video, radio, newspaper, magazines, photographs or the popular press, which transmission involves the San peoples, must apply for permission from a designated leader. The application should contain the details requested for in the information sheet (**annexure to the media contract**) on the basis of which permission may be granted.

7. If permission to publish is granted, it shall be provided on the WIMSA **media contract** form, which sets out the rights and obligations of the media.

8. Failure by the media person or organization to comply with the terms of the contract will lead to cancellation of the contract, and to appropriate punitive action.



Media and Research Contract
(general purpose)
of the San of Southern Africa

Between

the San Organisation

Details

_____

_____

Bank account

_____

and

the Applicant for media or research with the San Organisation

Details

THE PARTIES AGREE AND RECORD AS FOLLOWS:

1. THE PROJECT

The Applicant applies to the San for permission to carry out the following media or research project, which may be described more fully on the attached annexure, described briefly as follows:

Project name and details

Approved by the WIMSA Annual General Assembly on 28 November 2001.

The purpose of this contract is to ensure that all San intellectual property (including images, traditional knowledge, music and other heritage components as recorded in any medium) is controlled and protected.
If envisaging a more complex project, the Applicant should hold further discussions with WIMSA.

2. UNDERTAKINGS BY THE APPLICANT

The Applicant undertakes as follows:

2.1 That the information provided and recorded herein is correct.
2.2 To respect the culture, dignity and wishes of the San throughout the project, and not to publish any facts or portrayals that might be harmful or detrimental to the San.
2.3 To provide the San with three copies of the final product or products, free of charge.
2.4 Not to utilise any of the materials commercially, or for any purpose not disclosed herein, save with the written permission of the San.

3. UNDERTAKINGS BY THE SAN ORGANISATION

The San Organisation undertakes to do the following:

3.1 To cooperate with the Applicant in every possible way regarding the successful completion of the project.
3.2 To remit to WIMSA five percent (5%) of all and any income received in respect of the project.

4. OWNERSHIP

Ownership of the material produced during the project, as well as of the final product, shall vest as follows (delete those not applicable):

a) Jointly with the Applicant and the San
b) With the Applicant
c) With the San Organisation
d) Otherwise (as stated):

_____

5. PAYMENT

The Contractor shall make payment to the San as follows (fill in and delete as applicable):

5.1 To WIMSA in respect of facilitation of the project, the sum of

_____

5.2 To the San Organisation, the sum of

_____

5.3 Other (specify):

_____

_____

All payments to the San are to be paid into the bank account specified by the San above, unless otherwise agreed.

6. GENERAL

Any additions to this contract shall not be valid until duly signed by both parties.

> It is agreed that the contract shall only be finally valid and of full legal force when formally approved by WIMSA as the San body authorised to protect the rights of the San peoples.

In the event of a dispute or a breach by either party, the aggrieved party shall provide immediate notice of such breach, and the parties shall attempt to resolve the issue informally. While the rights to resort to litigation remain reserved, the parties commit themselves to utmost good faith in the resolving of any disputes between them by negotiation or mediation.

Signed by the **Applicant** at

_____

on this _____ day of _____ 200_____

Witnesses 1 _____

2 _____ Applicant

_____

Signed by the **San Organisation** at

_____

on this _____ day of _____ 200_____

Witnesses 1 _____

2 _____ San Organisation

_____

Signed and approved by the Working Group of Indigenous Minorities in Southern Africa (WIMSA)

WIMSA _____ Date

_____

Additional Information Sheet

ANNEXURE TO MEDIA AND RESEARCH CONTRACT

Note: This form records the subject matter to be addressed by a company or individual wishing to engage in a media or research project with or involving the San. If the parties feel that the matter does not warrant the degree of detail specified here, they may agree to provide no more than the bare essentials.

1. APPLICANT / CONTRACTOR DETAILS

Organisation

_____

Contact person

_____

Full physical address

_____

Postal address

_____

Telephone # (add code) _____ Fax #

_____

Email address

_____

2. THE PROJECT

Project name or title

_____

Project description

_____

_____

Project details

_____

_____

3. SENSITIVITY

Does the media subject matter or research involve any intellectual property of a form that requires special protection (e.g. rituals, myths, performances, traditional plant or medical knowledge or secrets)?

Details

_____

WIMSA ACCOUNT DETAILS

Name of account	*WIMSA Media Account*
Bank	Commercial Bank of Namibia Windhoek South Branch Bismarck Street PO Box 1, Windhoek, Republic of Namibia
Type of account	Investment Account
Account Number	*No. 9998*
	Swift CBON NA NX

ANNEXURE

COLONIAL EDUCATION AND THE PRODUCTION OF RURAL MISFITS



2

Colonial Education and the Production of Rural Misfits

Otsile Nisoane, University of the North West

Abstract

This chapter aims at providing a discourse on colonial educational system as the basis for the collapse and obstruction of the development of rural peoples' knowledge; the production of rural misfits and the creation of an African bourgeoisie that fails to locate the development model suitable for their locality. Furthermore, it seeks to highlight the disarticulation of western/colonial education in tackling the problems of rural Africa.

The chapter draws the conclusion that rural people's knowledge is important and its revaluation for application in decision-making, policy formation and development will accelerate both appropriate change and sustainable development. The need for teaching and research on the significance of rural peoples' knowledge to both the urban and the rural scholars is a necessity for the sustainable future of rural communities' knowledge as articulated within the indigenous context.

Introduction

Colonial education came with the process of colonialism which involved one nation taking control of another through the use of force or acquisition. This form of education was part of the establishment's attempt to produce 'assimilados'. Accordingly, the whole of the colonial education system was meant to assist in the consolidation of foreign interests (Kelly and Altbach 1984). Through assimilation (which involved those who are colonized being forced to conform to the cultures and traditions of the colonizers) the colonial authorities created a mental situation which can be referred to as a 'colonial mentality'. Colonizing governments realized that they gained power not necessarily through physical control alone but through mental control as well. This mental was implemented through a central intellectual institution, the school system, at the time based on rather respectable theoreticians who considered the right to colonize as a natural right (Mudimbe 1988:137).

This school system developed syllabi that oriented the learner towards the metropole far away from the realities of the rural communities. The process of western education (referred to in this paper as colonial education) represented an attempt to strip the rural people and the colonized people of their indigenous learning structures and draw them toward the structures of the colonizers.

The essential structures of indigenous knowledge production were important institutions in the governing, management and articulation of the cultures of the

indigenous people. Institutions of knowledge production — such as the initiation school, game and recreation, work plan, dance and song, as well as story telling — still remain pillars of indigenous or traditional education. The development of colonial education erased from the minds of the learners the centre that provided the basis of culture and communal belonging. Such an erosion occurred both violently and non violently through the work plan that the economic systems of western origin introduced. This further resulted in perpetual confusion in the minds of the adult African who did not attend the western schools; moreover, its corruption of the mind of the new African leader is obvious; when after attaining colonial education he or she began to look down upon his own tribe and people. Colonial education assisted in creating a power-grabbing elite and fostered the dependence on western countries which in turn educated the elite in European universities.

The collapse of the development of rural people's knowledge is the direct result of the expansion of western powers. At the height of their powers, western nations concluded that they must do their best to form a class of persons who were to act as interpreters between the governors and the millions of governed; Vilakazi here expresses the same sentiment as did Thomas Macaulay in stating that Africa became, as it were, a 'non-living possession' of Western civilization. Educated Africans were educated as part of western civilization, but unlike their western counterparts, they were locked in a suffocating status of not being able to engage themselves in developing a civilization of which they felt part. Colonial education was important in facilitating the assimilation process in colonies. This education, as the exercise of domination, stimulated the credulity of students with the ideological intent (often not perceived by the educators themselves) of indoctrinating them to adapt to the world of oppression (Freire, 1970). In support of this point, Hooks (1994) argues for the distinction between education as practice of freedom and education that merely strives to reinforce domination.

The introduction of the new education by the colonial regime left those who were colonized with a lack of identity and limited sense of their past.

> Even worse was the impact of colonialism in the cultural field. Europeans who moved into Africa during this period, especially between 1900 and 1945 — missionaries, traders, administrators, settlers, engineers and miners alike — were generally filled with the spirit of cultural and racial superiority of the day. They therefore condemned everything African: African music, art, dance, names, religion, marriage, systems of inheritance, etc. To be admitted into church, an African had not only to be baptized but had to change his name and renounce all the above. Colonialism therefore caused cultural stagnation if not degeneration in Africa. (Boahen 1990)

The colonial education, like every proper system of education, is founded upon and served to develop a particular civilization. The biggest problem with education in Africa is that, with the conquest of Africa by Europe, Africa was denied the status of a civilization that other continents were accorded.

Not only did the colonial educational system eventually create a sense of disaffection or desire to disassociate oneself with the native heritage, but it affected the individual and the sense of self-confidence. On top of this the new colonial education undermined people's belief in their names, in their languages, in their environment, in their heritage of struggle, in their unity and in their own abilities. It makes them see their past, their rural richness, their living heritage, and their cultural and natural heritage as a wasteland of non-achievement and it causes them want to distance themselves from that wasteland (Ngugi 1993).

After over one hundred years of colonial power and forty years of African independence, the realities and the consequences of colonial education can be observed in that Europeans in Africa remained Europeans, and educated Africans became Europeanised. Throughout the period of practicing and teaching colonial culture the indigenous people's history, customs, heritage and a sense of their past gradually dwindled away into oblivion. The internalisation of colonial practices by the colonised created problems for development and the production of authentic and particularistic knowledge that would be relevant to the local expression of the rural people. In the new wasteland, the essence of local cultures, economic survival and agricultural practices were seen as forms of backwardness for which the blame was put on the traditional leaders who attempted to protect their knowledges by rejecting the processes of modernization and industrialization which occurred at the expense of the knowledge of the rural people. If we examine critically the traditional role of the university in the pursuit of truth and the sharing of knowledge and information, it is painfully clear that the biases that uphold and maintain white supremacy, imperialism, sexism, and racism have distorted education so that it is no longer about the practice of freedom. The call for recognition of cultural diversity, a rethinking of ways of knowing, a deconstruction of old epistemologies, and the concomitant demand that there be a transformation in our classrooms, in how we teach and what we teach, has become a necessary revolution — one that seeks to restore life to a corrupt and dying academy (Hooks 1994:29-30)

Down But Not Out

The wealth of knowledge the elderly African possesses is the alternative source of vibrant intellectualism to which the educated and the certificated African should turn to. After many years of seeing colonial education be promoted by black leaders themselves, we now see a return to the source of perhaps all forms of knowledge on earth, if the scientific findings that say Africa is the cradle of humankind are anything to go by, then the contribution that indigenous African people continue to make to world knowledge systems should be acknowledged, properly attributed and legitimised.

The situation in rural Africa is that knowledge of the principles and patterns of African civilization remained with ordinary, uncertificated men and women, especially those in the rural areas(Vilakazi,1999). The production of rural misfits came with the arrival of the colonial forces and their education system. Africans were caught in a situation where their cultures were undermined and eroded by the missionary education which had strong underpinnings of colonial domination. The tragedy of African civilization is that western-educated Africans became lost and irrelevant as intellectuals who could develop Africans further. The rural areas, which are highly impoverished, lack the means to respond to their unique situation. The imposition of development model based on European standards and conditions is in large part responsible for this. The whole process of educating the black child to be a 'hewer of wood and a carrier of water' has affected not only rural Africa. It has also caused exclusion in the education system whereby black children's and adult's knowledge of indigenous survival practices based on their own technology and scientific orientation were found irrelevant and baseless by the colonial teacher. The bottom-up approach to knowledge production was never acknowledged by the education systems adopted by the British, German, Portugal colonial and South African apartheid governments, the last reflecting a colonialism of a special type. The consequences of colonial domination has also been described by Native Americans (see Laliberte, Settee, Waldram et al, 2000:43). Since the European invasion of North America and other Indigenous peoples' lands, the western world's Eurocentric interpretation (assuming there is only one view of the human race) of other peoples has pervaded almost all printed matter in Western society, particularly educational materials.

Amongst the many challenges that are faced by policy-makers in education is to bring to the fore the significance of indigenous knowledge in decision making. Until the day when the bottom -up process of knowledge production is not only acknowledged as vital but embedded in all disciplines and areas of education — including economics, sciences and technology — the expropriation, destruction and theft of Indigenous peoples' knowledge by the west will continue. The process of recovering and developing a bottom-up approach in diverse areas of knowledge production has recently been supported by several government agencies, namely the Department of Arts, Culture, Science and Technology. One must face the fact that most African universities have not lived up to their re-

sponsibilities and challenges as a guiding light to the continent and to the societies within which they are located. What then is the challenge before us?

The Re-education of the Educated.

In order to close the gap created by over four hundred years of domination and rejection of rural people's knowledge, the black intellectual must be emancipated from the utilization of one single world view to interrogate and bring analytical interpretations to world events and scientific discoveries and concepts. Such a liberation of the mind was addressed by Ngugi wa Thiong'o in his seminal work *Decolonising the Mind* (1981). Indigenous knowledge is not to be seen as only an "alternative" knowledge but should be recognized as one domain of knowledge among others. In the following discussion I am indebted to Herbert Vilakazi (Makgoba, 2000) who first presented these steps to revaluing indigenous knowledge: what I have done here is to locate them within the process of revival and utilization of rural people's knowledge.

Five approaches to the revival of the self

- Step one: acknowledge that Africa's intellectuals, in general, have no spiritual or intellectual sympathetic relationship with the culture and civilization that presently embraces the masses of African people (cf. Chinwezi 1975, *The West and the Rest of Us*).
- Step two: these intellectuals, who lead in building the new Africa, must educate themselves in the principles and patterns of African civilization and culture (insofar as these are not lost; cf. Diop 1981, *Civilization of Barbarism*).
- Step three: the only teachers that these intellectuals have (for their re-education) are the ordinary uncertificated and often rural African men and women (cf. Smith 1999, *Decolonizing Methodologies*).
- Step four: acknowledge through observation and participation that there is a new way of knowledge production, that is, uncertificated men and women shall be incorporated as full participants in the construction of education in Africa (something quite different from that of the colonial educational system). This calls for new methodologies of research and a new affirmation of the respect that should be accorded to elders who will be involved in the production, recording and teaching of the indigenous knowledge systems (the European colonial definition of literacy will be challenged in the sense that in pre-colonial Africa the absence of letters or being unable to read letters does not make one an illiterate). This will be the first instance in history where certificated intellectuals alone shall not be the sole builders and determinants of education (cf. Kraak 2000, *Changing Modes*).

- Step five: the intellectuals will be involved in so-called field-work but not necessarily in the western anthropological sense of 'othering' and 'reification' but working among their own people as part of an effort aimed at reconstructing Africa and developing an epistemology that is sensitive to the ethics of indigenous peoples (cf. Smith 1999, Decolonizing Methodologies).

This liberating process should not be guided by frameworks designed by the colonial powers. As long as our education is determined by the colonial models or by those who have no link to the heritage and the spiritual past of Africa; we will forced constantly to shift from one policy to another without being able to identify one educational approach that is relevant. Africans, both young and old, should work together using their unique patterns of development based on indigenous knowledge. In doing so they should recover their experience and knowledge that has been scattered the world over (after all it was labour and raw materials from Africa that developed both European and Western economies). Africa should build on the indigenous so that she can overcome the dependence that is trapping her. Rural developmental plans should prioritise agricultural production aimed at local consumption first before export plans (rural populations, with their wealth of knowledge in the agricultural field, have been left in the lurch by the systems of modernization and industrialization). Rural people's knowledge of practical solutions to developmental problems should be promoted.

The absence of role models in African communities is a cause for concern when dealing with the effects of colonial education in the production of rural misfits. Elizabeth Rasekoala remarked at the African Renaissance Conference held in Johannesburg in 2000. Allow me to cite her analysis at length.

> Young people on the African continent have had their aspirations, dreams and motivation undermined by their under exposure to role models with 'cultural and moral integrity'. The young Black African child is faced with two extreme situations. On the one hand, the African intellectual who, behaving like a spoiled child, on his rare visits to the village/township expects to be treated with awe and reverence, highlighting his apartness from the community, as if he had never been born there, and on the other hand, the gangster warlord who flashes his ill gotten gains, and also expects to be treated with respect, in spite of the fact that his lifestyle is morally reprehensible. Faced with these two options, what are our young people supposed to do? There is a desperate need to address, in our continent, this glaring vacancy of role models for our young people with cultural moral integrity, so as to provide our young people with a holistic and grounded sense of what it means to be a 'successful' African.

The exodus of educated Black young people from the township and the village are a direct result of colonial education. In the first instance it trained the Black child to either be a teacher or nurse who later discovered the posts were filled-up and found it difficult to get employment. The systems of producing the university, college and high school graduate was geared to 'concentrated' economic participation. Thus, the majority of high school graduates went to work in the mining industry. They, like the rest, were never exposed to methods and means of dealing with their own situation, namely to overcome the poverty that kills the majority of our people both physically and spiritually. Training in the homelands was no better; there the system simply perpetuated a colonialism of a special type. The destructive influence this had on Black people has been poignantly expressed by Ayi Kwei Amah in his novel *Two Thousand Seasons*.

Such an Exodus is exactly what the machinery of labour production — the school — had to produce for the economies in the urban areas. Students were never encouraged to take agricultural studies seriously. The answer to the question why students failed to study agriculture is not simple, but among the reasons is the fact that there was not a single success story of a black farmer — either commercially or subsistence — to whom the rural child could look up to. The small percentage of black farmers as a whole could not inspire youth enough for them to take up agriculture courses. A key factor was that the land which was fertile and agriculturally productive was owned by Whites, and this is still the case. As Marcus Garvey warned, these Whites never intended Blacks to develop beyond the status of 'hewers of wood and carriers of water'. Such a paranoiac and paralysing state of affairs undermined the spirit and self-confidence of blacks both young and old to a point where those who moved into urban settlements became strangers to the rural experience and those who remained in the rural areas became dysfunctional in development. The guinea pig approach of colonial education has failed to serve the development of rural Africa.

These good-for-nothing products of colonial education became misfits who, frustrated by both their irrelevant education and the inability of the rural areas to provide them with the luxuries of the city; went into exodus. When they return home they demand respect from those left behind, but failing to command such respect they find themselves completely alienated. This is in fact the situation of the prevailing African bourgeoisie, which is completely parasitic in the sense that it exploits the social base but contributes little or nothing to the development of society's forces of production. The phenomenon of a parasitic bourgeoisie was analysed by Fanon(1963) as follows :

> It lacks an economic base, i.e. it is just a bourgeoisie in spirit, mostly in the civil service (bureaucratic); most of it is an alienated group as seen in its imitation of western values; it is characterised by intellectual laziness or spiritual penury, as shown by its ignorance of the economy and socio-economic condition as of their own countries. It does not take the trouble to study and understand the forces of imperialism acting on them, especially on the economy. This makes the African bourgeoisie fail to rationalise popular action hence fails to lead the masses...

What then should the African bourgeoisie do in the face of the pressures of the dominant western culture? As Ngugi (1993) points out,

> intellectual workers can draw pictures of the world in harmony with the needs of the forces of human destruction; or in harmony with the forces or resistance for human survival, creativity and renewal. Intellectuals can draw pictures of the universe and its workings to instil fear, despondence, and self-doubt in the oppressed while legitimising the world of the oppressor nations and class as the norm, they can draw pictures that instil clarity, strength, hope, to the struggles of the exploited and the oppressed to realize their vision of a new tomorrow.

Intellectuals are produced by education and culture; and they so happen to have influence within their communities as well as outside but must bear in mind the responsibility that they have over their own people. With the type of education that insists on one-dimensional learning, a dependency on the western thought, the formation of Black intellectuals will ensure that they continue to emulate the former colonial models. Without change, the colonial mentality will continue to live in the hearts and minds of millions of Blacks already many years into their political independence. This has been the experience of may in the former colonies of Britain and other European countries. Until African educational leaders re-cover their heritage of indigenous knowledge, very little of a sense of emancipation and real liberation will be promoted in the learning areas. The result will be constant experimentation with the curricula, which will toss and turn according to changing policies unable to provide the substance of education.

Rural people's knowledge is practically invisible in the official history of South Africa. And I believe it is imperative to make that knowledge visible at this point in time. Every epoch of history produces its own thinkers, thinkers who play an important role in the construction of cultural products for public welfare and consumption; rural people, like all other indigenous peoples, should do likewise. White academics, primarily western European historians and anthropologists, for too long have owned the past of other continents and particularly that of Native nations. Although soldiers, missionaries and merchants were the initial forces that colonized Natives, the continuing psychological processes of dehumanisation and inferiorisation ensure their subjugated status. It is n the basis of this recognition that Native decolonisation must begin. The racist Eurocentric pattern established by the initial colonizers will be broken only when the colonised reclaim their history (Laliberte, Settee et al 2000:51).

The collective memory of the rural people has evolved a mythology that can be found in many oral versions or in the form of dances and popular culture such as theatre. All these cultural forms carry age-old knowledge and practices, among them traditional African dietary systems that have been disrupted. Many of the weight problems experienced by modern women, for example, are due to the intake of foodstuffs that are produced of genetically engineered substances and can be resolved by turning to a traditional diet. The sad story is that intellectual property rights of indigenous peoples are not protected and their knowledge of plant collection, production and use is abused by pharmaceuticals and even some scientific research councils (Mail and Guardian,22-28 June, 2001).

One of the critical factors in the disregard of the collective memory of indigenous peoples is the 'misfit' image that is pushed by the media. Both public and private media have a role to play in promoting the utilization of natural resources both in medicines and food intake or substitution. Among the challenges faced by the media is that of raising the awareness of the general public concerning the utilization of local resources in a sustainable manner. At the same time, the media must re-educate the public on issues that were suppressed by colonial education, among them knowledge traditions regarding environmental and nature conservation as part and parcel of community's strategy of survival and welfare.

I personally was upset by reading one weekly newspaper's account of the response of a young lad in Sierra Leone when asked to comment on the withdrawal of the British troops from that country. "Here we are", said Sa Rynaka, "we are nice boys , we are strong boys, we are educated, and there is no peace and jobs. We want to be re-colonised. You should stay because we don't trust ourselves". There one has the essence of psychological colonisation — a young African man requesting that they be re-colonised by the British authority. One more frequently hears such statements from young disillusioned people who see no hope in their leadership, their countries or their people. This youth deemed it fit to call for a re-colonisation by Britain because he believes that under Britain things were better and would be so in future as well. It is painful and sad to see the citizenry of some countries in Africa torn apart by frustration that is experienced due to a void in leadership, role models and self-confidence. The response of Sa Rynaka is a direct challenge for those who wish to push forward the agenda for a change of mind-set, from that of the dominant western epistemology to an Afrocentric one. The whole process of 'de-colonising the mind' requires guidance and mentoring by elders and a leadership that is committed to take the youth along the road to survival through mental emancipation. The critical core of Sa Rynaka's statement is reflected in the words "because we

don't trust ourselves". We might well keep this phrase in mind as we attempt to implement the five steps toward grasping the significance of our indigenous knowledge systems.

Why does western knowledge continue to benefit and grow in strength in our communities?, one might ask. One answer is that the desire for external knowledges prevails because they are supported by powerful political and economic structures that are globally dominant. Local knowledge often persists as the main form of resistance of many rural communities in Africa. Another response is that the colonial education and the establishment of compradors managed to create middlemen and women whose responsibility it was to maintain the colonial culture and destroy or suppress local cultural growth. Smith (1999) comments that the nexus between cultural ways of knowing, scientific discoveries, economies impulses and imperial power enables the West to make ideological claims to having a superior civilization. For indigenous peoples, the major agency for imposing this positional superiority in the areas of knowledge, language and culture was colonial education. Colonial education was also used as a mechanism for creating new indigenous elites. Their status came about through the alignment of their cultural and economic interests with those of the colonising group rather than with those of their own society.

The present policies developed by many government departments have no link whatsoever to rural people's knowledge. The absence of in-depth participation by rural people through their own structures, such as the House of Traditional Leaders, should be promoted. Policy-makers should avoid regarding rural people as illiterate and incompetent when policies are developed. The House of Traditional Leaders plays, or at least should play, a pivotal role in the conceptualising and elaboration of policies rather than simply rubber stamp legislation and planning whose origins are alien to the peoples concerned. Instead of alienating and isolating rural peoples, policy-makers and developers should consult and engage them.

Rural peoples knowledge should form the basis for policy-making and should therefore be revalued. This challenge is greater than one might even have expected, in the sense that current policies will need to be revised with the objective of ensuring that rural people's knowledge is taken into account. This is a challenge that any liberated people would take on with pride. Allowing rural people to set the agenda for policy formulation, and thereby building on indigenous knowledge, is central to this process. Such a shift is long overdue, if rural people are to be recognized not only through their leaders only also directly by governmental planners and developers such as rural development agents or rural appraisal consultants.

Sustainable development can be achieved by incorporating the knowledge of rural people more and more at both the conceptual and pragmatic levels. Such development, built on indigenous socio-cultural foundations, can be the only base of future project planning and implementation. Freire once said "the man who proclaims devotion to the cause of liberation yet is unable to enter into communion with the people, whom he continues to regard as totally ignorant, is grievously self-deceived". Many Africans who are orientated to the Western philosophies continue to nurture a perception about Africa that is characterised by ineffectiveness, disarticulation and intellectual paralysis.

In response to this state of affairs, Kwasi Wiredu wrote:

> "the African philosopher writing today has no tradition of written philosophy in his continent to draw upon. ... present day African philosophers have been trained in the western tradition, in the continental or Anglo-American style, depending on their colonial history. Their thinking, therefore, is unlikely to hold many peculiarity African novelties for anyone knowledgeable in western philosophy."

For this very same reason, African militants and our Afro-American brothers are often disappointed with the sort of philosophy syllabus that is taught at a typical modern department of philosophy in Africa. They find such a department mainly immersed in the study of fields such as logic, epistemology, metaphysics, ethics, political philosophy and so on only as they have been developed in the west, and they question why Africans should be so engrossed in the philosophy of their erstwhile colonial oppressors. The new teacher, intellectual or cultural worker must go to the people in order to engage them in dialogue. Not all messages coming from the educator, politician or intellectual are ones of 'salvation'. Freire (1970) points out that one cannot expect positive results from an educational or political action programme that fails to respect the particular view of the world held by the people.

The starting point for organizing (including the Five Steps discussed earlier) the programme content of education or political action must be the present, existential, concrete situation including the aspirations of the indigenous people. In doing this the colonial education will have less and less of a role to play in shaping the mindset of the majority of the rural people. The knowledge of the latter should be the main philosophical and intellectual grounding for the new programme. Traditional expressions of education have been all but eliminated in favour of institutions founded on the psychological premises of behaviour modification, command and control. Those institutions continue to adhere to a Eurocentric orientation to life and resist any attempts to integrate understandings that allow for cultural diversity (Cajete 1994:77). This point is further supported by Smith's (1999) attempts to 'indigenise' colonial academic institutions and/or the

individual disciplines practised there. These efforts have been fraught with bitter struggles over what counts as knowledge, language, literature, curriculum, the very role of the intellectual and the critical function of the concept of academic freedom.

Conclusion

The colonial system of education should be challenged in that it assumed and created the impression that Africa had no form of educational system to offer its peoples. Instead, colonial education supplanted traditional forms of education and the institutions that supported them, replacing them with systems founded on Enlightenment and Judeo-Christian principles that had no respect for indigenous realities. We hope now to reverse the situation, for the west should be prepared to learn and build on indigenous perspectives and practices . Marxists argue "the material doctrine that men are products of circumstances and upbringing, and that, therefore, changed men are products of other circumstances and changed upbringing, forgets that it is men who change circumstances and that the educator himself needs educating". In repositioning education as a factor of social change, the intellectual should observe that the denial of communion in the revolutionary process or the avoidance of dialogue with the people under the pretext of organising them, strengthening their revolutionary power or ensuring a united front, is really a fear of freedom.(Freire, 1970). It is a fear based on a lack of faith in the rural people. If the rural people cannot be trusted, however, there is no reason for liberation.

The production, through colonial education, of the urban intellectual with a rural background has encouraged (at this time of history) the desire to educate children and parents alike. Education was argued to be the key to a better life and future. Now that the Third world wants to improve its own situation, it is the West that fails to give the necessary support. In his *Discourse on Colonialism* (1955), Aimé Cesare states that "at present it is the indigenous people of Africa and Asia who are demanding schools, and it is colonial Europe which thwarts this demand; it is the African who is asking for ports and roads, while colonial Europe remains niggardly on this score; it is the colonised man who wants to move forward, and the coloniser who holds things back."

It is through the teaching of endogenous knowledge that the rural people of the world and the first nations can gain control of their destiny, their knowledge and their lands, thus their rights. Only then will they enjoy the freedom to practice their cultural heritage and the protection from exploitation that turns them into rural misfits.

Dibate. A Case Study

Dibate, aged 28, attended school at Thutong in Marweng, a village near a mining town in the North West Province of South Africa. At age 18, just after he received his standard ten matric results, he left home to work in the mines. After ten years of working in the same mine he decided to enrol for a course in business administration. His intention was to complete a correspondence course within two years. After some time he no longer could find time to study and decided to give up.

The language which was spoken at the mines did not correspond at all with the English and Afrikaans of the grammer and public debate courses in which Dibate excelled while at high school. Nothing of his earlier training motivated Dibate to respect formal education. He wondered at times why people back home people got education but could not get work or produce their own food and other things that they dearly needed for survival.

Over the years Dibate, realised not only that he was not educated enough but that the school system did not prepare him for the hard labour performed hundreds of metres underground. What came to his mind was that this was in fact work for the unschooled, the illiterate. Why, he asked, had he not gone for physical training or a course in mining or engineering? The latter, he knew, were still generally preserved for the whites. He regrets the many years of his life that he attended school. At times, while walking miles across the cold land covered with wet dew in winter and mud during rainy seasons, he often wondered why he sacrificed days and even sleepless nights studying for the final examination, the very examination that landed him in the belly of earth.

Dibate kept wondering what purpose education served. He found himself doing the same work done by migrant workers who never went to school and were incapable of writing their own names. Things were getting harder by the year. Back home his friends paid little attention to all the trouble Dibate went through; all they cared about was the leave time or short visits he spent with them during which he would buy beer and cigarettes for them. They too

passed their matric but could not get work. Year after year Dibate spent his vocational leave at Marweng. That way he could go to funerals, church or wedding to meet old friends. Writing or reading was something he had last taken seriously when preparing for matric exams: he had not been required to read or write a single thing at work since everything was explained to them in Fanakalo, the language spoken in the mines.

The type of education that Dibate and all his fellow Blacks received did not prepare them for the type of work the companies offered. It was a model of colonial education and the colonizer determined the curricula. What made things worse for Dibate was that after fifteen years of hard labour one of his co-workers from a neighbouring country was promoted to team leader. This man had not gone to school and would at times even boast about it. Dibate could only reflect that all his years of attending school were wasted. He never dreamt of his school days, that now seemed so carefree, any more; life was now all labour and pain, going down the shaft and coming back up from that deep, deep hole to yet another day or night of 'rest' depending on which shift he was working.

Case study developed by Otsile Ntsoane, 2000

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7. Indigenous Knowledge Systems and their Economic Potential in South Africa

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Introduction

'Diet pill: San might sue Pfizer', reads the headline of a story in the 22 June issue of the *Mail and Guardian*, a South African weekly newspaper. 'South Africa may give the world a blockbuster drug, but there are claims that traditional knowledge has been plundered', the subheading continues.

The article details how a small firm based in the UK has made agreements with the giant international drug firm Pfizer to market a 'miracle' slimming drug isolated from a small cactus eaten by the San on their long hunting trips to stave off hunger and thirst. Pfizer believes the 'dieter's dream' may turn out to be as big a money earner in the US $1 billion market for slimming as Viagra has proved to be in the male potency market. Ironically, the small British firm obtained the rights to commercialise the drug from South Africa's Council for Scientific and Industrial Research (CSIR), which has owned the patent since the early 1960s. The San, the *Mail and Guardian* reports, '... are angry, saying their ancient knowledge has been "stolen", and are demanding compensation'. This chapter focuses on the need for countries in the southern region of Africa to introduce and implement ways to protect such knowledge.

Many people in developing countries, including Botswana and South Africa, depend on their environment, the veld, for their survival and to meet basic needs such as fuel, health, food and shelter (Sekhwela and Ntseane, 1994). Sacks (1997) defines veld products as non-grazing products that provide food, craft material, tanning gums and so on. Moruakgomo (1996) shows that veld products such as *Artemissia Afra*, (*Lengana* in Setswana) are supplementary sources of medicines. In the Transkei (South Africa), for example, the plant is used commercially to cure a number of ailments such as swelling and sweating of the feet, and gout.

Van der Vleuten (1998) indicates that indigenous knowledge systems have a crucial role in rural community sustainability in terms of providing

employment, enriching nutritional content of foodstuffs and maximising the use of local resources. Few studies have been conducted on a comparative basis in the Southern Africa region on production and utilisation of veld products and their associated knowledge systems. Therefore a study into areas of sustainability and intellectual property rights, and their implications with respect to local knowledge systems, will be a contribution to the need to protect local knowledge systems from capitalist exploitative interest.

Studies by Mushita (1995) show that 75 per cent of 120 active compounds currently isolated from higher plants and widely used in modern medicine, show a positive correlation between their modern therapeutic use and the traditional use of the plants from which they were derived. However, commercialisation of such products often results in rural people losing ownership and control of their natural environment and knowledge systems. This is particularly so when commercialisation of veld products involves local and foreign capitalist companies concerned with profits rather than meeting community needs. Because of their strong dependence on the environment for survival, rural people are vulnerable to such commercialisation and are sensitive to the need to conserve their natural resources base.

Who is Protected?

Respondents interviewed in this study expressed reservations about private companies protecting their veld products and related knowledge systems, because of the companies' interest in profits rather than in the interests of the community, and feared that they would become alienated from the source of their being. Protection of cultural and intellectual components is essential, indivisible and crucial for local survival and development. Linked to this is the right of ownership and control of knowledge and resources.

This observation is supported by studies conducted by Thusano Lefatsheng (1994) in Kang, Botswana, showing that most people preferred the government and local community to provide protection for veld products. Matawanyika, Garibaldi *et al.* (1994) note that in South Africa the Bakgatla Community Development Organisation (BCDO) uses its tribal structures to mobilise its people's local conservation measures.

Interviews conducted in Magogoe and Dinokana Villages in South Africa showed that the greatest concern was the lack of regulatory measures and capacity to protect veld products and the local knowledge base, and knowing how to deal with agreements intended to benefit local people. Respondents who were members of the Dingaka Association and Traditional Healers

Organisation based in South Africa were concerned about their isolation from government on matters relating to sharing their indigenous knowledge and its benefits, including conservation methods and ecological knowledge.

Interviews conducted in both countries studied revealed a common agreement by respondents on the need to protect their local veld products and indigenous knowledge systems from exploitation and foreign control. They expressed concern about the limitation in South Africa of existing local, national, and international legislation such as the following:

- The Medical, Dental and Pharmacy Act No. 13 of 1928 that served to constrain traditional medicinal practitioners by restricting issuance of licenses to the Minister of Public Health, with the aim of reducing the number of practicing traditional medical practitioners in South Africa;
- The Natal Code of Native Law No. 19 of 1891 requiring that herbalists seek approval to practise from the regional African chief and stating that they must purchase a license to do so;
- A number of laws such as the Witchcraft Suppression Act No. 3 of 1957 which prohibit specific activities;
- The Forest Act No. 22 of 1984 and the KwaZulu Forest Act No 15 of 1980 which theoretically regulate the exploitation of plants;
- Local by-laws such as the Business Act and Tribal Regulations which legislate on trade and influence when and where medicinal products may be sold (Christoffersen *et al.*, 1996).

Legislation affecting the practice of traditional medicine has been in place since 1890, but until recently there was no law that enforced the protection of veld products and their indigenous knowledge systems. However, there are currently a number of Bills waiting to be enacted for the protection of indigenous knowledge systems, including the Bill on Intellectual Property Rights, the Heritage Resources Bill and the Protection of Indigenous Knowledge Bill. South Africa is also a signatory to a number of international laws and treaties that have a bearing on indigenous knowledge systems such as the International Convention on Biological Diversity that recognises indigenous knowledge practitioners and states that they should benefit from any commercial venture that uses their veld products or indigenous knowledge systems. The Convention on International Trade in Endangered Species of wild fauna and flora aims to protect any species that is regarded as endangered, but does not offer protection or benefit to local communities. Such treaties do not recognise the indigenous as defined in the South.

What is Indigenous?

Kuya and Maleka (1996) argue that indigenous does not necessarily mean traditional. They define indigenous as what the local community regards as authentic. Lalonde and Morin-Labatut (1993) support this when they argue that indigenous knowledge systems are not monolithic, because some elements are traditional and passed down from one generation to another with little or no changes while others are subject to innovation and integration of foreign practices. Indigenous knowledge systems are in constant transformation.

However, Lalonde and Morin-Labatut emphasise that indigenous knowledge systems and veld products have value not only for the cultures from which they emanate, but also for the scientific and commercial needs of outsiders. This argument has strong implications for the utilisation of indigenous knowledge systems and veld products in Botswana and South Africa. *Bio-Diversity Campaign News* (1996) states that the key strategy is to ensure that intellectual property rights of local communities are guaranteed, value is added to their knowledge, their entrepreneurial capacities are developed to generate returns to this knowledge and products, and that their cultural and institutional basis for dealing with their natural environment are enriched.

In accordance with Article 8 (j) of the International Convention on Biological Diversity (1992), national legislation on access to genetic resources must ensure the consent not only of the national government but also of the local or indigenous communities from which genetic material is taken or whose traditional knowledge is utilised for commercial purposes. Further to this, the Community Rights (Article 6) states that local communities have the right not to allow the collection of biological resources and access to their traditional technologies, knowledge and innovations, when doing so may threaten the integrity of their natural or cultural heritage.

Sing (1996) emphasises that existing intellectual property rights and regimes give the holder an exclusive monopoly to restrict the use (by copy, adapting and distribution) of the information embodied within the subject matter. It thus becomes a matter of grave concern when intellectual property rights agreements give a monopoly over the use of veld products to big companies which want to control the market (Convention on Biological Diversity, 1992).

A summit held in Ouagadougou in May 1996 was held partly in response to problems encountered when dealing with trade related intellectual property rights and the World Trade Organisation. At the summit, the Organisation of African Unity endorsed a draft Convention on Access to Biological Resources

and the Protection of Community Rights. It is on this basis that African countries pass national legislation enabling them to regulate access to their genetic resources and to legally protect the rights of their communities.

The problem that South Africa currently encounters (Sekhwela and Ntseane, 1994) is that strategies adopted usually do not take into account community-related intellectual property rights, traditional knowledge and techniques. Furthermore, whatever experts impose is often not accepted by the communities and thus not utilised because most external strategies contrast with indigenous ones that are authentic to the local community (Tikatikwe, A Supplement in Mmegi, *The Reporter*, 22 August 1997).

Botswana has passed laws, including the Agricultural Conservation Act (1977), that prohibit the extraction and distribution of devils' claws (Harpogophytum Procumbens). Under this Act, members of the public are required to have permits to dig and sell plants that are regarded as endangered. South Africa, on the other hand, has not fully protected indigenous plants from random and unmonitored extraction and distribution.

To ensure that any agreement for development optimises the benefits accruing to the local people is the greatest concern for respondent communities in Dinokana and Magogoe in South Africa. The challenge from the respondents' viewpoint is that Western intellectual property rights do not consider the interests and sustainability of the traditional rights of local communities over their resources and associated knowledge.

In the absence of policy legislation, enforcing agencies and empowered communities, the consequences are that country-related intellectual property rights and genetic resources will be exploited and developed by foreign companies with little gain to either the country or people from whom knowledge is gleaned. A policy structure will commit governments to develop legislation and establish tools to control access to genetic resources including veld products and related indigenous knowledge systems. Such a move will solve a current trend that reveals unfair distribution of costs and benefits in bio-prospecting ventures to the disadvantage of local communities who are the custodians of biodiversity and the related indigenous knowledge.

The scanty availability of information on the ecology and socio-economic impact affects the production of veld products. This was expressed in the fear of the potential hazard of over-exploitation and environmental degradation (Kgathi, 1987). This chapter looks into two examples of existing veld products that are used as medicines or food, and the contribution of veld products to

the socio-economic sustainability of the study communities in terms of employment, income generation, health and food security.

The Veld: A Closer Examination

The commercial potential of South Africa's veld-related intellectual property rights and products has been stressed in recent years (Materechera, Hansen and Nyamapfene, 1998), although at present the veld product sector is informal and does not make a specific contribution to GDP. However, for the poor who make up 60–70 per cent of the rural population, veld products are probably more important than livestock. The distribution of veld products has a bearing on settlement patterns since people adapt to their environmental conditions and exploit all available natural resources.

Imbrasis belina

Phane (*Imbrasis belina*) larvae in Southern Africa have attracted the interest of researchers who are investigating this edible species for a number of scientific reasons (Gashe and Mpuchane, 1996). In Botswana, *Imbrasis belina* is the major source of cash income for the harvesters as well as providing other members of the family with employment. The third source of cash income was beer brewing, followed by employment for cash (Ntsoane, 2000a). Dependence of rural communities on such natural resources is linked to their conservation and thus to sustainable development that provides food, generates income and employs rural people in natural resources projects. Most harvesters of veld products, including *Imbrasis belina*, are women who should be empowered to benefit more from their sustaining of *Imbrasis belina* that supplies significant amounts of high-quality protein. *Imbrasis belina* contains amino acids that are easily digested, thus making it suitable as a weaning food. The need for its sustainability is of great concern for the rural poor who depend on it for their livelihood.

Artemesia Afra

Artemesia Afra is another well-known medicinal plant in Southern Africa, known as wormwood in English, Wilde in Afrikaans, Longana in Setswana and Mhlonya in IsiXhosa. *Artmesia Afra* belongs to the family of Compositae known as *Artmemusa absinthium*. Economic rural development plans in the Ciskei, South Africa and in some villages in Botswana specifically exploit *Artmesia Afra*. It offers great promise as an alternative crop because of its adaptation to the environment and its high financial return. Consequently, there has been much interest in farming it as a commercial crop (Materechera, Hansen and Nyamapfene, 1996). In North Western Province and other regions of South Africa the plant is used in different preparations for a wide

339

variety of illnesses including lack of appetite; coughs, colds, and chills; dyspepsia; menstrual period pains; stomach ache, colic and other gastric derangements; croup and whooping cough; gout; and as a purgative. The infusion or decantation is used as a lotion to bathe haemorrhoids and as a hot bath to bring out the rash in measles. The vapour from boiled leaves can be inhaled for respiratory afflictions and can relieve neuralgia, mumps, throat inflammations, and sweating and aching feet. It can be used with tea or as a tea substitute.

Artemesia Afra requires lower inputs than conventional crops in terms of planting, tillage, fertiliser and pest control, so that it is relatively easy to establish, manage and maintain (Macerechera, Hansen and Nyamapfebe, 1997). The species is rich in essential oils and a small worldwide demand exists for Artemesia-type oils for use as external medicines, perfumery and deodorant soaps. Artemesia also has potential as a substitute for more highly priced oils. A research team in Alice, Ciskei, reported that manufacturing techniques have already been evolved such as standard dry steam distillation procedures for extracting the oil, bulk handling equipment and methods, and for local processing of the crop.

Considering the different purposes and uses of *Artemesia Afra*, its economic potential is huge and its development should not be delayed. The plant should be developed, its economic potential explored and the intellectual property rights retained by the local community who can share the final product jointly with the developers.

Discussion

The term sustainable development stems from the 1980 World Conservation Strategy. The report of the World Commission on Environment and Development, 'Our Common Future' (the Brundtland Report of 1987), gives prominence to sustainable development. The fundamental premise of sustainable development is that there is an obligation to future generations and the notion that we owe them the choice to make their own decisions about the resources we bequeath them. However, there is growing evidence that the planet's natural resources are being steadily degraded and in some cases irreversibly damaged.

The Earth Summit at Rio de Janeiro laid down a challenge to nations to achieve sustainable development. People must change their attitudes to the use of resources, particularly to those from the biophysical environment of the interconnected ecosystem of land, air, water and biological species upon which

we depend for our life needs. To help this change in attitude, changes must be made to the laws and institutions that influence our behaviour and relationships with each other, and with the biophysical world. Sustainable development within such a context is a major policy cornerstone of the democratic government of South Africa, as stipulated in the Reconstruction and Development Programme (ANC, 1994).

Indigenous knowledge: some definitions

Definitions related to the topic are brief and to the point, but require deeper meaning that is involving, inclusive and in the interests of people in the southern hemisphere, especially sub-Saharan Africa. In the past, the meaning or the conceptual framework was defined in the interest of Western epistemology with little regard for African or Asiatic definitions of the world. The articulation of the definition, conceptualisation and operationalisation of the term 'Indigenous Knowledge' given here is based on a need to reintroduce an Afro-optimistic approach to knowledge production.

Any search for a definition should not be a short cut such as reverting to the dictionary definition. Neither should it be based on the definition of the coloniser whose language and culture obviously influenced the meaning of the term (Ntsoane, 2000b). North–South tensions have been linked to economic disparities (Mazrui, 1990) where definition was based on Western epistemology with little or no respect for the articulation of aboriginal or indigenous peoples. Such denial of articulation is common and well documented by many authors of Africa origin and scholars from the diaspora.

First, in Africa the issue of knowledge production, generation and use was not academically derived. The process was and is continuous, without words and concepts, or copyright. The process is open, highly participatory and commonly used. The production is not alienating (Ntsoane, 2000b). Ani (1994) puts it clearly when he says that the pragmatic implications of indigenous knowledge systems are that, unlike the European conception of science, they are secular and do not alienate. Rather they liberate, rationalising concepts and knowledge. The African way of explaining the world is not linear or alienating, and it is not written. Such concepts are the basis of the European tradition of science that deals exclusively with the physical world and in which the metaphysical is debunked as irrational, mystical and anti-scientific. Indigenous knowledge production consists of characteristic elements of the traditional heritage developed and maintained by a community of individuals that reflects their traditional expectations. Other definitions include, 'Local knowledge that is unique to a given culture or society. It is the basis for agriculture, health care, food preparation,

education, environmental conservation and a host of other activities. Such knowledge is passed down from generation to generation, usually by word of mouth.' Indigenous knowledge is culture-based and practised in ways that are effective, efficient and functional in those communities that hold them. Communities that practise indigenous knowledge also have a technical knowledge component. Apart from such technical knowledge, local communities also have non-technical knowledge or insights, wisdom, ideas, perceptions and innovative capabilities that pertain to ecological, biological, geographical and physical phenomena (Todaro, 1985; Ntsoane, 2000b).

Indigenous practice

This is the application of community skills and experiential knowledge to help people support, develop, and maintain their communities in combination and integrated with the knowledge and skills derived from appropriate professional knowledge systems.

Indigenous community workers

Although employed at the lowest scale, indigenous community workers are often expected to perform specialised functions without training or compensation. Many have years of experience in the service delivery field but receive no recognition of their experience and wisdom.

Conceptualised articulation of indigenous knowledge systems

In the current analysis of the use of veld products and related knowledge systems is the challenge faced when useful indigenous knowledge becomes delegitimised or lost with the growing dominance of imported technologies, Western scientific principles, and conventional development strategies. Most scholars in anthropology and the social sciences use the term indigenous knowledge synonymously with traditional and local knowledge to differentiate the knowledge developed by a given community from knowledge systems generated through universities, government research centres and private industry. Scholars thereby subject endogenous knowledge to knowledge of indigenous people or any other defined community. Unlike the word traditional, which commonly implies that something is static, indigenous knowledge is dynamic.

Indigenous knowledge relates to the ways members of a given community define and classify phenomenon in their physical, natural, and social environments. It provides a basis for local decision-making, frequently occurring through formal and informal community associations and organisations. Communities identify problems and seek solutions in such local forums, capitalising on indigenous creativity and encouraging experimentation

and innovation. Indigenous knowledge is tacit knowledge and therefore difficult to codify. It is embedded in community practices, institutions, relationships and rituals.

Larsen (1998), reporting on the outcomes of workshops on indigenous knowledge systems, defined it as concepts, facts, perceptions, beliefs, information and values, as well as particular economic, social and traditional political arrangements. Ntsoane (2000a) defines indigenous knowledge as a fusion of both traditional and local. He adds heritage. He says it is production consisting of characteristic elements of the traditional heritage developed and maintained by a community or individuals reflecting the traditional expectations of such a community. It is local knowledge that is unique to a given culture or society. It is the basis for agriculture, health care, food preparation, education, environmental conservation and a host of other activities. Such knowledge is passed down from generation to generation, usually by word of mouth.

Then comes the word 'endogenous', which means what grows from within. What needs to be conceptualised is the process that takes place during endogenisation on one side and indigenization on the other. Endogenous knowledge, which according to simple meaning is growing and originating from within, is mediated wherein people's common understanding of what is shared, what is found in the group's experience and is strongly linked to their common sources of such knowledge. It is based on ritual about ancestors and speech given from generation to generation by word of mouth. Within the endogenous come the aspects of cognitive experience that are unique to the place and the people who conceal, shape and filter the knowledge utilisation among them. Indigenization and localising, critical thinking and theory correlate easily with the colonial invention of the native, the rural, the uneducated; indeed, the whole list of pejorative and derogatory terms that can be found in the euphemism lexicon.

The skewed insight given to the indigenous by the colonial must be challenged and removed. Hence the endogenization of plural knowledge and practices is needed through mental decolonisation, something that puts the oral history and knowledge that is not written as worth considering. The process of endogenization is that of asserting the notion of thinking with the assistance of the self, the involvement of the liberated self, the involvement of the 'internal brains' and the growing from inside of the paradigm that will be responsible for re-appropriating and partially reinventing local paradigms. The whole process should be seen as a nationalistic reaction against Western domination, against the neocolonial, against the informal globalisation with

its neo-capitalist investor notions. The endogenization of African knowledge systems should draw on prestigious cultural traditions of the East. Unless Africa affirms its epistemology, cosmologies, ethical and ecological concerns, the West will set the agenda for her. Plurality of knowledge is what should drive the cultural forces of change in the African renaissance.

Indigenous knowledge systems can be further defined as the combination of knowledge systems encompassing technology, social, economic and philosophical learning, and educational, legal and governance systems. It is knowledge relating to the technological, social, institutional, scientific and broad development of communities. It consists of tangible aspects such as medicine, natural resources, crafts and the like. Intangible aspects, however, consist of the knowledge system behind the technologies, such as indigenous education, philosophy, cosmology, botany, and crop and animal husbandry. In indigenous communities, the tangible and intangibles are closely woven together. This indigenous knowledge is not new knowledge. Senghor (1963) states that we have inherited our own method of knowledge from our ancestors.

Non-South Africans have played an important role in campaigns for environmental justice, bio-watch and sustainable natural resource utilisation, including mobilising South African citizens into forums that have begun to address matters related to the environment and indigenous knowledge systems. It therefore suggests that the role of Africans and other peoples from regions that suffered the effects of colonialism and the appropriation by the West of intellectual property rights can share their experiences in promoting the protection of their indigenous knowledge and natural resources. Except for a few committed Western environmental groupings, most have an agenda and interest in the bio-piracy and biosphere of the natural resources of the South. The South must choose its friends carefully. What is important is to draft laws that will protect the rights of local farmers and of all communities that produce veld products and own the knowledge that is needed for their production.

A strong conveyer belt of indigenous knowledge is needed across the continent. Each country should contribute in sustaining its own cultural niche. Such a niche should be linked to an industrialisation of non-industrialised indigenous technology or natural resources. Through such a network, indigenous knowledge systems will contribute significantly to the renaissance of the continent.

South Africa should use the experiences of eastern countries such as China,

Malaysia and India. Through sharing with this non-South African citizenry, knowledge can be exchanged and thereby increase the awareness and the potential of indigenous knowledge in communities.

The industrialised world can also contribute to the development of indigenous knowledge systems, even if this proves uncomfortable. Just as Europeans and Americans were active in popularising Western knowledge, they should be involved in giving Africa authority over her own indigenous knowledge. The struggle to revitalise Africa's legitimacy over indigenous knowledge systems must be negotiated through a strategic commitment by those who have benefited at the expense of colonies in Africa. There cannot be another colonialism of the mind and resources that are related to indigenous knowledge systems.

Community awareness of the economic potential, as well as the cultural bond that common knowledge brings to nations, will directly result in the popularisation of indigenous knowledge systems as a means of socio-economic sustenance and cultural bonding. Indigenous knowledge should be made popular amongst people of all ages because of its important role in providing problem-solving strategies, especially for the poor. Indigenous knowledge is commonly held by communities rather than individuals, is tacit knowledge and therefore difficult to codify, and is embedded in community practices, institutions, relationships and rituals. Furthermore, indigenous knowledge represents an important contribution to global development knowledge and is an underutilised resource in the development process.

A network between South Africa and other countries will facilitate the development partnership and contribute to learning more about local practices in other countries. It will enable African countries to better adapt global knowledge to local conditions, and thereby help design activities that better serve country needs. The proposed network should facilitate a sharing of indigenous knowledge practices and innovations among local communities in a South-to-South exchange.

Knowledge production and dissemination determine knowledge utilisation. Differences are at the level of interpretation where locally produced knowledge seems to be denied. During the anti-colonial struggle in a number of African countries, knowledge was appropriated whilst knowledge produced in those states that were not colonised remained authentic to local interests. Epistemic communities that share the same source and modes of knowledge disseminate knowledge in modes that retain the meaning and content of such knowledge.

When popularising areas of indigenous knowledge systems and their related science and technology, it is important to consider the nature of the communities involved in the process of development. Knowledge is a universal heritage and a universal resource. The need, therefore, to popularise indigenous knowledge systems amongst schools both inside and outside South Africa is important in post-colonial Africa. Knowledge as a universal heritage has location and models for dissemination. It was in the process of the dissemination of Western knowledge that indigenous knowledge systems were ostracised and disregarded. Indigenous knowledge systems were not included in discipline clusters of scientific knowledge and technology.

Indigenous knowledge systems represent a knowledge heritage that, much as it is universal, is also a unique way of ensuring that it becomes part and parcel of informing policy making, research and teaching modules so that it becomes a pivotal aspect of knowledge development.

Through promoting indigenous knowledge systems in schools, work areas and in our different communities, all Africa will create a platform for articulation, which will demystify the Western domination achieved through the violent and linguistic measures of the former colony. Space allocation by educators for learners to bring their knowledge to classrooms will create a dialogue that will eventually show that the learners' knowledge, which in most instances is based on indigenous knowledge systems, is vital in determining the educators' input. We cannot treat our learners as ignorant of their environmental, social, political, ecological, scientific and technological cultures. It is, therefore, appropriate to adjust the learning areas to the learners' needs and those of the community.

In popularising indigenous knowledge systems around science and technology, special attention should be placed on the paradigm shift from a Western epistemology to an endogenous or indigenous epistemology. Such a shift of mindset demands new areas of articulation. It is at this stage that the knowledge production discourse is engaged. It is for a holistic knowledge framework that seeks to make whole that which was partial, incomplete, in large measure stunted and therefore stunting. The new framework which emerges involves principles that were present all along but were unknown to us. It includes the old as a partial truth and, by its framework, it transforms the traditional positions and the stubborn new observations, reconciling their apparent contradictions (Hountondji, 1997). Indigenous knowledge systems as an operational concept reject the skewed way of analysing the world, the one way of seeing and the only tool through which the masses of humanity can receive accreditation and license to be (Hopper, 1999).

Human rights, democracy and equality as inscribed in our constitution will have no meaning in reality as long as one knowledge system dominates, as long as the 'othering' is promoted. Nothing of social justice can be spoken about until the indigenous knowledge systems of those communities and countries that were colonised and served a resource for the economic development of the coloniser have platforms to influence policy in knowledge generating, validating and dissemination as notions of human rights. In popularising indigenous knowledge systems, we should declare a struggle to emancipate indigenous knowledge systems and thereby contribute to the development of its holistic operationalisation.

347



6

Where is the Grassroots: Lessons from Research among Endogenous Communities in South Africa's North-West Province

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1. Introduction

This chapter intends to describe practical experiences and problems encountered, as well as share knowledge gained, during a recent period of research within two endogenous communities in South Africa's North-West Province. The Ganyesa and Lehurutshe endogenous communities, like other rural groups, have an intimate knowledge of various aspects of their surroundings and their daily life. These people have learned through their local, technological and ecological knowledge how to grow food and to survive in an often harsh and difficult environment. It is important to observe at the outset that existing research methodologies often prove themselves inadequate insofar as they are unable to provide or engage in appropriate epistemologies that would enable endogenous researchers to properly investigate the changing knowledge production environment.

Methodologies based on the 'Structural-functional' school of thought are restricting and limited in scope when applied to interviewing and collecting data from the respondents in endogenous communities in the areas we are dealing with. In using qualitative research methods, where the focus is on key informants, unexpected problems between the interviewee and the interviewer were often experienced, as will be explored later in the chapter. The instruments of research provided by the western approaches (Babbie, 1995, Neuman, 1997, and Bless & Higson-Smith, 1995) are generally restrictive and fail to bring forward the issues (such as sacredness and secrecy) that elder members of endogenous communities hold dear. In our context, local research proved to be a significant site of struggle between the interests of the community and the 'researcher', on the one hand, and ways of knowing by the West, on the other hand (Smith, 1999: 2). A range of problems pertaining to the use of Western developed methodologies were experienced and recorded by Smith (ibid), Battiste and Henderson (2000) and Dei et al (2000); their discussion provides alternative research methods and issues of ethical consideration that should be given careful attention by researchers. Smith (1999) observes that research is inextricably linked to European drives of imperialism and colonialism. In this light, the word 'research' might easily be judged one of the dirtiest words in the indigenous world's vocabulary.

2. Theoretical Perspectives

Given that a theory is a set of ideas which provides an explanation for something (Haralambos, 1985), the absence of a theoretical framework put forward by the experience of the endogenous community already poses a problem. The scientific establishment and its empiricist theoretical approach provides insufficient space — if any — for non-western societies to elaborate and employ their own approaches to fashioning 'world knowledge'. Intellectual domination by the powerful Western culture manifests itself in the very psyche of endogenous peoples. Western theories are selective in their perspectives, priorities and the assignment of significance to the objects of research. The vital interests of western science tend to supersede those of the peoples it studies, whom are identified as superstitious, without understanding the subjective and 'interested' utilization of 'scientific' theory itself. It is vital that endogenous peoples have a direct role in developing and defining research practices and projects related to them (Battiste, 2000: 132). Social reality can therefore not be approached from a single theoretical and exclusive base, such as that offered by western science.

The exploitation of endogenous knowledge systems should be viewed as part of the international exploitation of developing countries by Western capitalist countries, initially through colonialism and presently via globalisation, which has undermined the conditions for self-rule and self-organization (Shiva1997: 119). Through various mechanisms such as patent rights, western countries have managed to control and exploit the local knowledge systems and products of African communities. As a result, rural communities have been alienated from their natural resources through exclusion from the benefits of their knowledge system and products of their labour. This alienation has been perpetuated by the West through theoretical domination in both the fields of policy formulation and legislation. If researchers are to take this lesson to heart, they must seek methodologies that build a synthesis without relying on negative exclusions or a strategy of differences (Battiste and Henderson, 2000: 133).

The lack of protective measures — something rural communities regularly experience with regard to the use of veldt products — has placed them in conflict with those who claim to be developing those resources, including researchers. It is this conflict in particular that has put the unitary approach, including its anthropological field methods, into question. Is it, one asks, really too early to engage the formulation and practice of new methods (Kraak, 2000). He puts forward an interesting discussion of the 'Mode Two' concept, about which more will be said at the conclusion of this chapter. The main thought I seek to put forward here, at the outset, is that western-developed research methods are not providing sufficiently flexible tools for conducting research among endogenous communities, ones that take into consideration the need for problem-solving oriented knowledge as deployed by endogenous peoples.

3. Methodological Paradigms

There is at present no single (Eurocentric) approach demonstrating unequivocal respect for endogenous peoples in their investigation and recording of endogenous knowledge. Over the past centuries, Eurocentric researchers have expended considerable time and efforts examining and 'dissecting' indigenous peoples (Battiste2000: 143). Existing methods, including triangulation, are found to be based on the positivist theoretical outlook which has given rise to research paradigms dominated by structural-functionalist or rational choice and exchange–theory frameworks. Smith (1999: 12) observes that the issue of indigenous researchers working with indigenous research participants has never been addressed by the literature. Further, the laws, customs and practices of endogenous communities have been poorly studied and rarely respected by western researchers. Every facet of their existence has been examined and their dead have been dug up for biomedical research and its unpalatable tests. Unless researchers are aware of and act consistently with the laws of indigenous peoples, any attempt to learn or to exploit indigenous knowledge and heritage may be considered unlawful, illegitimate, and unethical (Battiste and Henderson, 2000: 144).

Researchers of the positivistic persuasion prefer precise quantitative data and often use experiments, surveys, and statistics. They seek rigorous, exact measures and 'objective' research, whose hypotheses are tested by carefully analysing numbers by means of specific measures (Neuman, 1995). They argue that 'there is only one logic of science', to which any intellectual activity aspiring to the title of 'science' must 'conform'. The positivists see social science as an organized method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity (Neuman 1995). Within this field, structural functionalism has often played a major role by stressing 'methodological empiricism' under the guise of the quest for scientific rigour and 'value-free' scientific inquiry (Kazamias & Swartz, 1977).

Nash (1977, cited in Odora-Hoppers, 1998) argues quite strongly for the consideration of the political nature of value systems, thus seeking to make us aware not only that the technocratic approach to valuation contributes to the domesticating objective of learning, but also that what usually passes for value neutrality conceals powerful yet hidden political conservatism. There is then no need to be subjected to the reductionist project of Descartes, in which objects of study are arbitrarily isolated from their natural surroundings and relationships with fellows, a project which in itself reflects a political choice aimed at controlling nature and the exclusion of other ways of knowing. What is at times referred to as a Cartesian tendency has contributed to the contemporary alliance of perverse knowledge claims with the perversity of dominating power. Our problem then resides in the fact that current research methods based on positivistic approaches fail us in terms of achieving comprehensive and responsible data collection among indigenous communities. The three levels of theory (ontological, epistemological and sociological) as described by reductionist science pose a definite problem in that they disregard knowledge that exists outside of those communities that intend to carry out the research.

Hountondji (1997) supports the assertion that, in methodological terms, engaging with indigenous knowledge systems implies sensitisation, empowerment, and restoration of holism and ethical practices including forms of spirituality belonging to individuals, systems and institutions. This entails going beyond the appraisals of the work of individual scientists, beyond particular research teams and the competitive acumen of individual research institutions, and reaching the point where it is possible to ask questions that can serve to re-centre Africa and the Third World. Communities and indigenous activists have openly challenged the research community with regard to issues such as racist practices and attitudes, ethnocentric assumptions and exploitative research, sounding warning bells that research can no longer be conducted with indigenous communities as if their views did not count or their lives were of no significance (Smith 1999: 9). Hence, research is not an innocent or distant academic exercise but an activity that occurs in a particular set of political and social conditions (Hountondji 1997: 5). Much of the existing research on indigenous peoples is contaminated by Eurocentric prejudice. Ethical research must begin to replace Eurocentric prejudice with new premises that value diversity over universality (Battiste 2000: 133). Academic research is all too often tainted with multiple forms of cognitive imperialism when dealing with indigenous issues.

The development of new methods to record indigenous systems is an imperative, and in turn a change in the attitude of researchers and extension workers is necessary. Though an awareness of IKS is rapidly increasing, the lack of adequate research methods creates a vacuum. Well defined methods would help outsiders to make use of the available resources — time, money, and human effort — efficiently. Use of clear cut-methods would also reduce the bias on the part of the outsider during the process of documenting IKS. They should above all take into consideration the socio-cultural variables that are prevalent in the rural areas (Warren 1992b).

Having provided a critique of the methodological paradigm and the problems that are experienced by utilizing a 'singular' or exclusive way of viewing the

world, irrespective of the consequences of its orientation, I now turn to a discussion of the methods that were employed by the team of researchers in conducting the 'in-community' research within the respective indigenous communities. In this case, we selected a number of approaches that were combined and modified. The team realised it had to be more creative and flexible in its attempt to identify and record endogenous knowledge.

4. Preparing for the research

In a first phase, the team familiarized itself with the research methodology, research questions, and objectives of the study as well as the language and cultural norms, values and orientation of the different respondent communities that were selected for visits during a defined research period. The team, comprised of persons from diverse cultural backgrounds and language proficiencies, conducted a two-day brainstorming workshop on research issues. What set the preparations of this team apart from the typical approach was that the team dealt more thoroughly with matters of language, as this was deemed crucial for the work that team members be able to use the different dialects found within the Batswana cultural polity and thus deal with respondents in their own community's dialect. Already at this stage it became apparent, for example, that certain objects or aspects of material culture were expressed in divergent terminology by the various communities.

Language can be a roadblock to unearthing and interacting fully with respondent community members. We consciously sought to avoid using the loose language that is spoken by the younger generation on an everyday basis. Steeping ourselves in and conforming to the local people's dialect assisted in the facilitation of interviews. An example of this is the greeting sequence, which includes mention of the appropriate totem in a collective greeting usually addressed to male elders. These elders are fond of being greeted with reference to their totem — Narel, for instance, for those whose totem is the buffalo.

The above remarks touch on the subject of cultural norms, which are further dealt with in, the section "Practices to be Observed". Otherwise, the following are common cultural values to be noted:

- In most endogenous communities every person gathered at a ceremony should take part at the symbolic invitation of the host community. In Lehurutshe area, for example, a visitor is expected to join rituals and ceremonies. Our group, for example, was invited to a ceremony during our visit there. If we had no knowledge of cultural norms of Bahurutshe we could have offended the community by refusing to participate or by just standing by and watching the ceremony.

- Ethical considerations include being sensitive to the cultures of the host community. This includes an understanding of the heterogeneity of endogenous communities; endogenous communities differ significantly in the ways they articulate their cultural norms, values and practices, as can be seen in linguistic expression, rituals, material culture and so on.

It is therefore crucial that any group conducting research orientate and familiarize itself with the norms, values and general cultural practices of endogenous communities prior to implementing the research itself.

Visits to villages and local cultural heritage sites and museums, accompanied by members of the local communities, were undertaken to familiarize the team with the subjects of research. Through these trips team members gained awareness about the heterogeneity of Batswana culture, despite the fact that the various communities can be said to speak more or less the same language. From pictorial information, text and discussion with elders and knowledgeable people, team members developed a strong sense of 'belonging' and 'identification' with the communities in question.

The team also reviewed the available literature during this phase. Materials ranged from old newspaper clippings to ethnographic books, tourism brochures, archaeological works and historical research that had been conducted in the respondent community over the years, particularly with respect to cultural developments relating to the pre-apartheid and apartheid eras. Additional information was obtained by listening to songs and reading and sharing folklore and poetry belonging to respondent communities. To 'know' the praise poem of a chief or clan whom one is visiting, for example, strengthens one's relations with the community. Moreover, praise poems contain expressions and references to many aspects of the community's life that can be of assistance in understanding its knowledge, values and practices. These poems or prose contain extensive information regarding the community's leaders or the battles, famines and other events it may have experienced over the years. Other resources included pictures, paintings and any other graphic portrayals of the life of the group.

5. Introductory visits

This stage of the research generally comprises a procedure wherein the objectives of the study is explained and appointments are made by members of the

research team to different members of the respondent community through oral or written exchange, often through formal letters. Representatives of the research team explicitly sought permission from the community and also took this opportunity to introduce themselves. Preparations for these first visits to respondent communities was made by letter, telephone calls, and personal visits by team members.

A number of problems were encountered here. In some villages the chiefs were not readily available to receive letters of appointment, or where they were present they could only be reached through their headmen. One difficulty here was that, after waiting some time for confirmation of a visit, the team would discover that the correspondence would arrive long after it had already made contact with a secretary or headman of the community. This confusion often delayed the team even further. Given that there are few or no operating telephones in some areas, alternative communication was lacking.

When arriving in the villages of the selected communities, team members sought to observe the norms, values and belief systems as they were locally practised. There were instances where some team members were not allowed to enter the Kgotla (tribal meeting place) because of inappropriate clothing. Women, for example, were not permitted to attend meetings if they wore trousers or had not covered their heads. Men wearing short trousers were also barred from attending. The value of modesty is highly regarded by a numbers of chiefs and headmen.

The researcher's mastery of language and manner of speaking to elders was found to be of critical importance when talking to elders and seeking their permission to enter their villages. Headman and elders requested and deserved clarity as to what exactly the purpose of the study was and what they could expect from the visits in terms of benefits to the community, monetary or otherwise. From the questions posed to the team by the community and its leaders, one could detect suspicions related to unfortunate experiences in the past. Some of the communities' representatives expressed their concern that the team's visits were just like those "where people come and say that they will do this and that and later disappear".

On the other hand, there were the more gratifying experiences where chiefs were readily available and willing to cooperate, providing the necessary network that enabled the team to conduct research. Community leaders provided names and addresses of key persons and even volunteered messengers to accompany the team to the respondents' homes. Although key persons are generally elders, inasmuch as they are notable custodians indigenous knowledge, knowledge and

expertise is not evenly distributed among a community's elders. There are also many members of the younger generations that have acquired a proficiency in local awareness and technologies. It is important to establish facts about the distribution of a knowledge base in order to identify the most appropriate interviewees and respondents. It is also pivotal to know the knowledge distribution pattern based on cultural practice or the local knowledge spectrum. One does not, for example, ask male respondents about things that are traditionally done by women, for they might not only fail to answer but might be offended. Some effort should be made to gain knowledge concerning the division of labour before conducting the research. An answer provided by a non-expert or inappropriate person might well be misleading in the sense that the respondent disposes of only a narrow or partial understanding of the subject at hand. This is where prior knowledge about the respondent's community is important for the researchers, and where the utilization of research assistance from the community itself becomes even more significant. In our case much of the preparatory work was carried out during initial visits by two or three team members.

6. Speaking with respondents

Although generally well-prepared to handle interviews at different levels, team members experienced several difficulties in addressing respondents, and particularly elders, in some villages. For one, the utilization of a local language was a problem as members of the team had prepared all their materials, including the questionnaires, in English. In doing so, they used Eurocentric epistemologies in preparing for work within endogenous communities. A lack of appropriate terminology or local language equivalents posed a challenge where elders wished to discuss particular objects, technologies or ideological concerns belonging to the local context. This experience showed that, even though some of them had originated from the respondent communities, team members in general had difficulties in comprehending some of the issues presented by the respondents. An additional problem was posed by local etiquette. In local terms an elder is addressed differently in terms of the choice of words or phrases and bodily gestures. One may not, for example, speak to an elder while seated or keeping one's hands in one's pockets. Further, young people are expected to refrain from addressing their elders by their first names. Observing the values of politeness and humility are important if one wants to capture the attention of respondents and particularly elders.

Since different dialects are currently used in the North-West, respondents often argued that members of the research team were not real 'Batswana', implying that they were not indigenous to the area. This was said irrespective of the fact

that the dialects team members spoke were acceptable in their own home areas. Many young members of the team who had not previously experienced this kind of insularity were discouraged by this kind of remark. Yet the problem of dialects was borne out by the fact that researchers and respondents often had difficulty identifying things for which they had different terms or for which the terms were mutually incomprehensible. Respondents often would expect the researcher first to answer their questions before engaging them in any discussion. They usually asked those conducting the interviews their own surnames and place of origin, who their parents were, what they were doing for a living, and so on. Others wanted to know the totem and clan to which team members belonged and often engaged in discussion with those whose surnames were familiar, sometimes revealing that they knew relatives of the researcher who had lived in the area.

All these are aspects of research that western approaches tend to neglect. The latter would appear to be more concerned about silencing forms of engagement and simply extracting answers to given questions. Oriented as they were to linear time and efficiency, members of the research team were caught off guard as the time scheduled for administering the questionnaires often ran short, with questionnaires remaining incomplete and other respondents not having been interviewed. This demonstrated that the research suffered from self-imposed constraints related to resources like finances and time.

7. Problems with using research aids

Handling and utilizing research tools such as cameras and tapes posed a problem for some members of the respondent communities. Interviewees would ask, for instance, "What are you going to do with this information?", or state, "I do not want to have my picture taken" or "please do not record my voice". Not all respondents experienced these instruments negatively; many were excited to see cameras and readily posed in the hope that they would appear in the newspapers or on television. It was therefore important to explain the usefulness of using the method of recording endogenous knowledge to members of the community. On the practical level, there was of course in many villages no electricity for running such equipment or recharging batteries. Worse still, the team discovered that it had made little provision for the purchase of extra batteries, tapes, film or other necessities not available in local stores.

8. Dos and don'ts

Ethical issues that are generally observed by western researchers include respect and being sensitive to the cultural and political issues of the respondents. Problems arise when the researcher's attitude towards the respective communities is based more on assumptions than on knowledge gained through experience correct information. In our context, a number of do's and don'ts in research became quickly evident. One should not, for example, allow young people to pose questions about certain topics that are considered taboo, such as initiation ceremonies. In Ganyesa young female members of the team were simply barred from questioning elders directly. Questions regarding childrearing, fertility, sacredness and matters of secrecy were all rightfully dismissed by the respondents if they had been asked by members of the team who were perceived as too young by the respondent members of the community.

Several do's in conducting interviews:

- Speak clearly, particularly for the benefit of those with problems hearing
- Position oneself close to the interviewee without encroaching personal space in order to be able to hear everything said; elders in particular tend to speak very softly.
- Identify yourself at the outset, giving both first and last names. It is quite acceptable to mention your tribal origins (place, totem, and genealogy).
- Avoid speaking too much, allowing plenty of time for the respondent to answer as he or she feels relevant.
- Where possible, reveal the motivation behind one's question.
- Repeat the question where the concepts may be foreign and in order to provide clarity of thought. This should be done especially when conducting focus group interviews to make sure every member of the respondent community hears and understands the question.

There are certain things that must not be done when conducting interviews in villages. Some of them will pertain to the taboos that are observed by members of a given community. For this reason one needs to have as complete as possible an understanding of the community's norms, values and beliefs when carrying out research. In our case the villages of Lehurutshe and Ganyesa were evidence how research methods on rural communities still using traditional knowledge need to be adapted. In Lehurutshe's Gopane village, for example, it was necessary to get permission from the headman of the ward before taking pictures in the village. In general, asking for permission to do things is a necessary formality.

9. Practices to be observed

In the following I discuss a number of common practices that an outsider should faithfully observe while conducting research among the indigenous communities of the area under consideration. They reflect unwritten rules and codes which form part and parcel of the host culture and thereby informs its unique character as a local community. These practices, described here in general terms, may, however, differ from group to group and vary among them in terms of extent and strictness of observance.

Research team members should familiarise themselves with these practices as part of their preparation and observe them from the start while conducting introductory visits for it is at this stage that the headmen and other elders in a particular community form their opinions of the team members. Their opinions are very much based on what they will consider to be good manners and appropriate behaviour shown towards the elders, men and women and the attitude of the visitors towards the community as a whole.

- Giving greetings: This is a simple practice but one which can cost you your acceptance if poorly observed. Villagers are generally people who greet one another and patiently ask the whereabouts and news of their relatives. It is through a typical greeting that parties exchanging greetings identify each other's cultural polity, the clan to which one belongs and parents or spouses. One must always greet elders, whether collectively or individually, with a reference to their status (an example being: *Dumelang Bagolo* – "greetings to you elders". Here it is the last term, *bagolo*, that must not be omitted.). It is regarded as bad manners to speak to elders without continuously referring to their status. One always refer to "*RRA*" when addressing a male respondent or "*MMA*" when a female respondent. Never use pronoun 'you', or '*Wena*' in Setswana, when referring to an individual elder. In this connection it should be mentioned that hand shaking is normally done only among men; only outside the local context will one find men shaking hands women. It is important to introduce oneself properly once the formal greetings are accepted.

- Practising humility: Tradition has it that those who humble themselves are well mannered and should be received with proper etiquette. The researcher should at all occasions show humility and politeness. It is not a good sign of being human to act superior to people whom one visits for the purpose of obtaining something from them.

- Requesting permission: Do not act without permission from the appropriate local authority.. Research teams should request authorisation for the use of cameras and other audio-visual equipment for it might be regarded as unacceptable to use these devices within the community. Certain aspects of local life are regarded as sacred and using western methods of recording them might not be considered appropriate. Here again, certain rules of etiquette are to be followed. In some village tribal councils, as in some western parliaments, one bows before leaving the meeting: one does not walk out while the chief is addressing the assembly.

- Dress codes: Some explanation of this topic, touched on earlier, is necessary. In modern villages there are two tribal gathering places: the *Kgotla*, the traditional place where the men gather to discuss polity and tribal issues, and the Tribal Office which is housed in modern building with administrative offices and a meeting hall. Only males members of the community are allowed in the *Kgotla* while in the Tribal Offices all are allowed because that is where the tribe's general administration of tribal matters is done. Since female members of the research team may not be allowed in the *Kgotla*, it may be advisable to request meetings at the Tribal Offices. Custom dictates that trousers may be worn only by males, and female members of the research team will not be allowed to attend meetings at either venue if wearing trousers. In other villages women are expected to cover their heads. In the course of our research, some female members of the team had to be left out of events because they were inappropriately dressed.

- The *Sethoboloko* concept: For many decades indigenous communities have observed the 12 o'clock mid-day work-stoppage. One is advised to check before visits whether offices will be open or elders present at the time of visiting. One should further establish as to whether it is permitted to walk through the village at mid-day as every attempt must be made to avoid offense.

- *Pula Molomo*: In some communities elders are not accustomed to divulge information free of charge although they do not explicitly state that this is the case or say that they sell information. It is a traditional practice in many communities to you offer what is called '*pula molomo*', a small amount of cash or presents that are offered to key informants speaking on behalf of the headmen or the chief himself. On the other hand, one should not randomly offer payment to other informants as other members of the community might not feel comfortable with the practice. One is advised to check on the legitimate beneficiaries and the sort and amount of remuneration expected in each community.

- Sharing with the community: At one of the villages in the Lehurutshe District, Gopane, team members were carrying out home visits when they were invited to join in a feast and beer drinking. Because the feast had a direct bearing on their research, their participation was beneficial. It is a sign of being human to accept such an invitation no matter the character of the feast. In this particular case, when we arrived we found men, women and children together enjoying a meal of mutton , maize meal, vegetables and African home made beer. Members of the team then began to explain their mission in the village. In the course of the event extensive information was gained regarding the symbolic importance of the feast. But sharing with the community is more than simply sharing in meals from which the researcher takes profit. It also includes sharing, where appropriate, one's own knowledge and experiences with the community.

- Punctuality: Since members of the local community must often walk great distances to the Tribal Offices or place of meeting, it is important to be punctual. No matter the cause of the delay, it was embarrassing to arrive at one gathering hours after the appointed time as the elders inevitably interpreted this as a sign of disrespect to make them wait.. And beginning a meeting with apologies it to start it on the wrong foot. In this case some villagers had not eaten since early morning and it was nearly noon when we arrived; the team had not brought along extra provisions, however. Some of the key informants had already left saying they needed to attend to errands and would return; others wanted to leave on the spot. Some did seem to understand the predicament but were not willing to stay for more than an hour. Others asked that we follow them to their respective homes, which was not possible because we only had one small vehicle. All in all we were fortunate in the demonstration of patience and hospitality that locals respondents showed and we were able to continue interviews throughout the day. Its success was very due to the fact that the wife of the local chief, one of the key informants, coordinated and facilitated the meeting for us.

- Be observant: Researchers need to listen with interest, paying careful attention to what is being said by the respondents and the community as a whole. Yet during an interview it is important to be observant of all the non-verbal information that is communicated in and around the interview itself. Study the surroundings and link this information it to what is being said. One might say that all the senses are to be applied when undertaking thorough research.

- Taking leave of the community: As with greetings, it is important to observe the customary manner of thanking respondents and taking leave of them. This is especially true with regard to the elders who are again addressed with their appropriate titles, as in the phrase *Salang sentle Bagolo* (a collective farewell to elders). This should not be done in an impatient manner so as not to communicate that one is in a hurry to go away. Leave the village with the same good manners that were displayed when entering. In some communities respondents will gather to bid you farewell. While in others depart is not much of a thing since you are part of them. However, irrespective of whatever circumstances bid the elders farewell in a respectable way, thanking them for their care, hospitality, and wish that it could rain as a sign of peace and prosperity. Do not make commitments to the villagers when leaving; promise only those things that you know are possible to do. Remember to humble yourself; this will prepare your next visit and that of those who come after you.

In sum, knowledge and observance of the norms, customary practices and values of the respondent communities should not only be seen as a means to make the research more efficient but rather a necessary condition for carrying out the research in a particular community.

Conclusion

In conclusion, the most important observation made by the research team in the course of its field work among local communities in the North-West Province was that there is a need for a new approach to research methodology, a new scientific inquiry that takes into consideration the fact that new knowledge production revolves around the non-professional, that is, the real custodians of endogenous knowledge themselves. This lesson reflects the emergence of what is known as the 'Mode Two' knowledge, which is in essence a mode of knowledge production, not new but newly-recognised, taking shape outside of existing academic disciplines, and, in part, outside of the insularity of the traditional higher education institutions (Kraak, 2000). In the light of our understanding of Mode Two knowledge, research of indigenous communities needs to be conducted within inclusive and democratic participatory types of approach whose main attributes are trans-disciplinarity, heterogeneity and organisational diversity (ibid).

The team found that Eurocentric methodologies, including a dependence on English or non-local languages, ultimately limit the researcher in the quest for understanding the dynamic of knowledge production, utilization and dissemina-

tion. Researchers should be aware that indigenous communities are not homogenous, as many outsiders perceive. In dealing with knowledge traditions among tribal peoples or local communities, adequate recognition should be given to their rights not to betray the secrecy and sacredness of many cultural practices.

The process of 'cultural othering' that for many years has excluded local peoples' knowledge in formulating and influencing policy should now be acknowledged in the implementation of 'Mode Two' research. According to the observation that universities will have to compete with local custodians of knowledge in producing a new understanding of the world, those with access to endogenous knowledge will play a key role in future research. Their own views and perspectives will contribute to the development of new theoretical approaches. Smith (1999: 60) rightly commends structural-functionalist approaches for their elaboration of systems to organise, classify and store new knowledge, and for theorizing the meaning of such discoveries. Placed in its colonial context, however, this research was undeniably also about power and domination. Instruments or technologies of research thus also formed instruments for the appropriation of knowledge and for legitimating various colonial practices.

It is therefore necessary to establish protocols for research carried out among indigenous communities. Such protocols should first of all be founded in the laws of the owners of the land (not those who have acquired it by theft but by virtue of being the first occupants before conquest or colonial appropriation). Ethical issues should be reviewed, much as the history of research should be reworked, as the need for an 'indigenised method' is pivotal. As long as the tools and instruments of research, including the types of questions posed, are not worked out together with the indigenous communities themselves, the problem of understanding endogenous knowledge will persist. Indigenous researchers should be encouraged to form and work within networks designed for the exploration and implementation of new methods of gaining knowledge from their own communities, as well as to provide guidelines ensuring the preservation of endogenous knowledge and the respect of its holders.

From this experience the team gained an awareness of the limits of research methods that are based in positivistic schools of thought, including the Eurocentric epistemology that for many years has dominated the study of indigenous peoples, duly reported its findings to the master cultures and formed a master narrative about the subjects. It is a research methodology that is currently challenged by indigenous peoples in many parts of the world. Such a challenge is needed and should be used to bring to the academic arena the awareness of a need for the respect of the diversity and 'universality' of knowledge and the consequences of this for the colonial and Eurocentric epistemology.

In the final analysis, one concludes that the official modes of knowledge production have been socially construed so as to become a near monopoly of specialist institutions from which most ordinary people are excluded. With the globalisation of western development goals and processes, most indigenous cultures are being forced into programmes of modernization that tend to regard the acquisition of material goods as the central function of life. Here an anti-colonial and anti-positivist discourse is required that emphasizes the power held by local knowledge and practices to survive the colonial and colonized encounters. The notion of 'colonial' is rooted in imposed relations and power inequities engendered by history, tradition, culture and contact. Anti-colonial theorizing rises out of alternative, oppositional paradigms, which are in turn based on indigenous concepts and analytical systems and cultural frames of reference. A new theoretical approach should acknowledge that every mode of knowledge is constructed differently although all knowledge forms and discourses are heavily coloured by situations and relations of power.

Notes

The author is indebted to the members of the Gopane and Ganyesa villages, the members of the research team and all who assisted in making the recording of these observations possible. Special thanks goes to the Department of Social Services, Arts, Culture and Sport in the North-West Province for providing the team with resources; to the Indigenous Knowledge Systems Programme Coordinator at University of the North-West, Prof. H-O Kaya, for his guidance; and to the following research assistants who were members of the team: Mafobo Kgosane, Kubelo Makitla, Dipuo Lethoko, Tsholofelo Kantane, Bukele Senosi, Qinisile Zwane, and Lebo Sekokope: You made the village to grow a child. To the traditional leaders, healers and respondent members in the two villages I wish to say: You once again brought us head-on with reality. As team leader, I am responsible for constructing this narrative with the aim of providing a discussion of the problems and possible solutions that can assist the indigenous researcher in carrying out community research.

Our use of several terms bear some explanation

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