

# **Sustainable use of biodiversity in SADC: shifting paradigms in biodiversity conservation**

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Mini-Dissertation submitted in fulfilment of the requirements  
for the degree *Magister Legum* in Environmental Law and  
Governance  
at the Potchefstroom Campus of the North-West University

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November 2015

## **Acknowledgements**

I would like to thank Dr Niel Lubbe for all his guidance, patience and motivation in achieving my goals. His expertise in regional environmental law and biodiversity was invaluable. Biodiversity is a topic that is close to my heart and I really enjoyed my research and working with Dr Lubbe.

I would like to thank Mrs Christine Bronkhorst from the Ferdinand Postma Library for all her efforts in assisting me with my research.

I would like to thank my family for their support, especially my aunt Kath who really inspired me to pursue my dreams and for proof reading many versions of this dissertation. You are the agent of motivation and encouragement. I dedicate this work to you, luckily you have it read thrice.

*“The truth is: the natural world is changing. And we are totally dependent on that world. It provides our food, water and air. It is the most precious thing we have and we need to defend it.”*

Sir David Attenborough

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## **LIST OF ABBREVIATIONS**

CBD	Convention on Biological Diversity
COP	Conference of the Parties
GDP	Gross Domestic Product
GBO 4	Global Biodiversity Outlook 4
LPI	Living Planet Index
MDG	Millennium Development Goals
NEPAD	New Partnership for Africa's Development
PA	Protected Area
RISPD	Regional Indicative Strategic Development Plan
SADC	Southern African Development Community
SADC BAP	SADC Community Regional Biodiversity Action Plan
SADCC	Southern African Development Co-ordination Conference
SWI	Shared Watercourse Institutions
TFCA	Transfrontier Conservation Area
WSSD	World Summit on Sustainable Development
WSTCU	Wildlife Sector Technical Coordinating Unit

## **Abstract**

All life on earth depends on biodiversity and is of international concern. Biodiversity must be conserved for future generations. The 1992 Convention on Biological Diversity (CBD) recognises that biodiversity is a global resource and has an all-encompassing value extending beyond economic value. This dissertation focuses on the biodiversity found within the Southern African Development Community (SADC). Biodiversity is in decline on a global scale as well as locally within the SADC sub-region.

This study discusses the importance of biodiversity on a global scale as well the importance of biodiversity to the SADC sub-region. The SADC is very rich in biodiversity. However there are certain influences that impact the conservation of biodiversity within the SADC. This study explores some of these influences. One of the influences on the conservation of biodiversity is the legal framework that relates to biodiversity.

The SADC nations and citizens depend greatly on biodiversity. Biodiversity contributes largely to gross domestic products and income within the SADC sub-region. The sustainable use of biodiversity is therefore a necessity.

The SADC legal framework relating to biodiversity will be examined to determine to what extent the framework provide for the sustainable use of biodiversity. The evolution of the sustainable use of biodiversity is presented. The 2004 Addis Ababa principles and guidelines for the sustainable use of biodiversity principles and guidelines will serve as a reference point when the SADC legal framework relating to biodiversity is examined.

After examining the SADC legal framework relating to biodiversity it is found that SADC legal framework does not provide for the sustainable use of biodiversity to the extent that it should. This study presents conclusions and provides recommendations that may assist the SADC legal framework in regulating and incorporating the sustainable use of biodiversity into the legal framework that relates to biodiversity.

## **Keywords**

Biodiversity - SADC - Sustainable use of biodiversity – Sub-regional environmental law

## **Titel van skripsie in Afrikaans**

Volhoubare gebruik van biodiversiteit in die SAOG (Suider-Afrikaanse Ontwikkelingsgemeenskap): verskuivende paradigmas betreffende die bewaring van biodiversiteit.

## **Opsomming**

Die bewaring van biodiversiteit vir toekomstige geslagte is van internasionale belang aangesien alle lewe op aarde daarvan afhanklik is. Die 1992 Verdrag oor Biologiese Diversiteit (KBD) erken die feit dat biodiversiteit 'n globale hulpbron is, met 'n alles-omvattende waarde wat veel verder as bloot die ekonomiese waarde daarvan strek. Hierdie skripsie fokus op die biodiversiteit wat gevind word binne die Suider-Afrikaanse Ontwikkelingsgemeenskap (SAOG). Biodiversiteit word bedreig op alle vlakke insluitend, en veral op, die SAOG-substreek.

Die studie bespreek die belangrikheid van biodiversiteit op 'n globale skaal asook die belangrikheid daarvan binne die SAOG-substreek. Die SAOG is baie ryk aan biodiversiteit. Daar is egter sekere invloede wat 'n impak op die bewaring van biodiversiteit binne die substreek uitoefen. Hierdie studie ondersoek sommige van hierdie invloede. Een van die invloede op die bewaring van biodiversiteit is die wettlike raamwerk wat daarmee verband hou.

Die SAOG-nasies en hulle burgers is tot 'n groot mate van biodiversiteit afhanklik. Biodiversiteit dra grootliks tot die bruto binnelandse produk, en inkomste binne die SAOG-substreek, by. Die volhoubare gebruik daarvan is dus 'n noodsaaklikheid.

Die SAOG-regsraamwerk betreffende biodiversiteit sal ondersoek word om te bepaal tot watter mate dit vir die volhoubare gebruik van biodiversiteit voorsiening maak. Die evolusie van die volhoubare gebruik van biodiversiteit sal uiteengesit word. Die 2004 Addis Ababa-beginsels en riglyne vir die volhoubare gebruik van biodiversiteit sal as 'n verwysingspunt dien wanneer die SAOG-regsraamwerk met betrekking tot biodiversiteit in oënskou geneem word.

Die studie van die SAOG regsraamwerk met betrekking tot biodiversiteit bevind dat die raamwerk nie tot die gewenste mate vir die volhoubare gebruik van biodiversiteit voorsiening maak nie. Hierdie studie maak gevolgtrekkings en aanbevelings wat van hulp mag wees met die regulering en integrasie van die volhoubare gebruik van biodiversiteit binne die raamwerk.

### **Sleutelwoorde**

Biodiversiteit - SAOG - Volhoubare gebruik van biodiversiteit - Substreek omgewingsreg

## 1 Introduction

Biodiversity can be defined as the variability that exists among living organisms from all sources, including *inter alia* terrestrial, marine and other aquatic ecosystems, and the ecological complexes of which they are part. It includes diversity within species, between species, and of ecosystems.<sup>1</sup> All life on earth, including human life, is dependent on biodiversity, which is the basis of all life.<sup>2</sup> Biodiversity is useful to people in three broad ways: it has consumptive use value (in that nature provides products that can be consumed); it has productive use value (in that nature provides products that may be commercially harvested) and it has non-consumptive use value (in that indirect benefits may be derived from biodiversity, such as ecosystem functions).<sup>3</sup>

Biodiversity is an international concern. The 1992 Convention on Biological Diversity<sup>4</sup> (CBD) recognises that biodiversity is a global resource and has an all-encompassing value extending beyond economic value.<sup>5</sup> The CBD also recognises that global biodiversity must be protected by all states, making it a common concern of humankind.<sup>6</sup> The CBD calls for active biodiversity protection measures. The first section of Chapter Two of this dissertation will discuss and demonstrate its importance on a global scale so as to illustrate why an effort to conserve biodiversity is required and why its international protection is essential. Its current international status will be described to show that biodiversity is in sharp decline everywhere and to further bolster the

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1 Article 2 of the *Convention on Biological Diversity (1992)*.

2 Glavovic 1995 *South African Journal of Environmental Law and Policy* 16.

3 Glavovic 1995 *South African Journal of Environmental Law and Policy* 16.

4 *Convention on Biological Diversity (1992)*.

5 The CBD recognizes and stresses the intrinsic value of biodiversity, which is far reaching. The CBD recognizes its ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values. Preamble of the *Convention on Biological Diversity (1992)*.

6 Preamble of the *Convention on Biological Diversity (1992)*.

argument for international biodiversity conservation.<sup>7</sup> The need for African protection of biodiversity and the SADC's role in terms of the CBD will also be addressed.

The SADC is a sub-regional intergovernmental organisation. It has 15 member states which are party to the 1992 Treaty of the Southern African Development Community<sup>8</sup> (the SADC treaty). It has set goals, which could be broadly described as working towards economic, social and political prosperity.<sup>9</sup> Each member state of the SADC has specifically defined territory and each state has jurisdiction over only its defined territory. Each member state can exercise power and function to the exclusion of other member states only within its jurisdiction. Their reaction to decolonisation has led African states to have a high regard for their sovereignty, one of the consequences of which is that the SADC states may freely decide about and independently use and exploit their natural resources. Statehood, territory and sovereignty have a major impact on the consumption and conservation of biodiversity.<sup>10</sup> The second part of Chapter Two of this dissertation provides a background to and historical information regarding the SADC. Its history and structure are discussed to explain the manner in which it has dealt with biodiversity in the past. The discussion also describes the factors that influence biodiversity conservation.

Chapter Two will show that the SADC is very rich in biodiversity, and will describe what is meant by biodiversity hotspots. The biodiversity found in this region is extremely important because all natural and human life depends on biodiversity.<sup>11</sup> The members of the SADC are party to the CBD, and therefore have international obligations in terms

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7 World Wildlife Fund 2014 *Living Planet Report 2014* <http://wwf.panda.org> 12. United Nations Environment Programme 2012 <http://www.unep.org/geo/> 134. World Wildlife Fund 2014 *Living Planet Report 2014* <http://wwf.panda.org> 32.

8 *Treaty of the Southern African Development Community* (1992).

9 Mwenifumbo 2012 *Southern African Development Community Law Journal* 2012 57. Article 5 of *SADC Treaty*.

10 Scholtz 2005 *Macquarie Journal of International and Comparative Environmental Law* 25. A discussion of the role of permanent sovereignty in African biodiversity conservation is included below in Chapter Two.

11 Biodiversity is a non-renewable resource which supports life on earth. The CBD provides, for instance, for the fair and equitable sharing of the benefits of biodiversity. Scholtz 2005 *Macquarie Journal of International and Comparative Environmental Law* 12.

of this treaty. For these and other reasons the conservation of biodiversity in the SADC as a shared natural resource is a matter of great importance. The region is much richer in biodiversity than most other regions of the world.

The SADC is losing biodiversity at an accelerated rate. Biodiversity hotspots are under even more threat.<sup>12</sup> The region is facing serious biodiversity challenges which emanate *inter alia* from an increasing human population relative to resources, from agricultural expansion coupled with declining land productivity, from continued reliance on wood fuel (which results in increasing land degradation), from climate change, and from the member states' inability to adequately address these issues.<sup>13</sup> Chapter Two will indicate that the SADC has identified that the paucity of laws relating to biodiversity is one of the reasons why there is such biodiversity loss in the region. It will further be explained that threats to biodiversity often have an international character, as in trading and poaching. Thus, sub-regional action is required to prevent biodiversity loss. The benefits of taking appropriate action to conserve and maintain biodiversity would transcend national boundaries, and the entire region would benefit.<sup>14</sup> Regional law should therefore be framed to empower member states to act together with regard to environmental needs within the region.<sup>15</sup>

The SADC is also partially economically dependent on biodiversity in terms *inter alia* of trade and tourism. Many SADC citizens depend on these natural activities for their livelihoods.<sup>16</sup> The use of biodiversity will be discussed below to indicate that the SADC

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12 SADC 2013 *Community Regional Biodiversity Action Plan* 10.

13 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 2. SADC 2013 *Community Regional Biodiversity Action Plan* 10.

14 The Regional Biodiversity Strategy states that the strategy is a means to achieving the sub-region's socio-economic goals through the restoration, maintenance or enhancement of biodiversity. SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 2.

15 Scholtz 2008 *Netherlands International Law Review* 328.

16 More than 50% of the SADC gross domestic product is derived from mining, wildlife, forestry, and agriculture. Between 40% and 85% of SADC citizens live in rural areas and depend primarily on

governments and the people they represent depend greatly on the existence of the available biodiversity, that they need to use it as a resource, and that they are likely to continue doing so. The sustainable use of biodiversity is therefore a necessity. Such sustainable use can be defined as the use of the components of natural resources in such a way and at such a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.<sup>17</sup> Any loss of biodiversity in the SADC region will result in the social and economic deprivation of the citizens of the member states, as their dependence on the existence of the biodiversity is great.<sup>18</sup> The chapter on biodiversity and the SADC aims to argue that the SADC is rich in biodiversity, that the biodiversity is being lost at a rapid rate, and that one of the reasons for this is the inadequacy laws relating to this context. The chapter also points out that for such reasons the SADC member states will need to continue to preserve their biodiversity, and will therefore examine to what extent the promotion of the sustainable use of biodiversity is included in the SADC legal framework. This is done in order to assist the SADC to address the inadequate legislation as well to assist in the regulation of the use of the biodiversity.

The sustainable use of biodiversity is discussed to ascertain the origins of the idea and the elements thereof, to serve as a guideline when the SADC legal framework is examined, as it is one of the major objectives of the CBD.<sup>19</sup> The definition of sustainable use as per the CBD will be considered. The Addis Ababa<sup>20</sup> principles and guidelines for sustainable use will also be examined for the same purpose. These

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the exploitation of natural resources for their survival. SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 2.

17 Article 2 of the *Convention on Biological Diversity (1992)*.

18 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 2.

19 Articles 6, 10 and 14 of the *Convention on Biological Diversity (1992)*.

20 The 2004 Addis Ababa Principles and Guidelines make recommendations to parties to the CBD as to how the sustainable use of biodiversity may be achieved. Secretariat of the Convention on Biological Diversity 2004 *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* <http://www.cbd.int> 8 -21.

principles and guidelines will serve as a reference point when the SADC legal framework relating to biodiversity is examined in Chapter Three.

Chapter Three will describe an example of sustainable use in a protected area (PA). The evolution of protected areas will be examined to illustrate the incorporation of sustainable use into more modern types of conservation. In the past, PAs have served as the cornerstone of biodiversity conservation. Sustainable use, however, does not necessarily form part of that vision of conservation. With biodiversity now being recognised as a common concern, the sustainable use of the benefits provided by biodiversity (otherwise known as ecosystem services<sup>21</sup>) has become an integral part of the modern PA paradigm. This section will also illustrate that there are greater demands on PAs today and that the sustainable use of biodiversity may assist in meeting those demands. Transfrontier conservation is a recent development and seems to incorporate sustainable use within its model. This paradigm shift will be examined in support of the argument that sustainable use is required today and that it can contribute towards biodiversity conservation.

The SADC Treaty proposes to achieve the sustainable utilisation of natural resources and effective environmental protection.<sup>22</sup> It further provides for co-operation between members in terms of natural resources and the environment. Although there is no single protocol dealing with biodiversity alone, there are several SADC protocols that flow from the SADC Treaty and deal with the topic of biodiversity among others. The SADC Treaty contains policies that are legally binding on members, such as the SADC Regional Biodiversity Strategy, which aims to provide a framework for cooperation and the implementation of provisions towards sustaining the region's biodiversity. The SADC

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21 Ecosystem services can be defined as natural services or natural capital that support life on earth and are essential to the quality of human life and the functioning of the world's economies. Examples are the chemical cycles, natural pest control and natural purification of air and water. Tyler Miller and Spoolman *Living in the Environment* Glossary G5.

22 Article 5 of *Treaty of the Southern African Development Community* (1992).

Biodiversity Action Plan (SADC BAP) should assist in facilitating the SADC Regional Biodiversity Strategy.

These protocols, the SADC Regional Biodiversity Strategy and the SADC BAP, will be evaluated to determine to what extent the sustainable use of biodiversity is provided for. As indicated earlier, an examination of the topic of sustainable use as incorporated in the CBD and the Addis Ababa Principles and Guidelines will aid in examining these SADC laws and policies.

It has been argued above that biodiversity is important and is an international common concern. The point has been made that the SADC region is extremely rich in biodiversity in comparison with other regions of the world, and hence that it is imperative to conserve biodiversity in the area. It has also been noted that biodiversity is being lost in the sub-region at a significant rate. One contributing factor is the inadequacy of the laws pertaining to biodiversity conservation in the region. The people of the region are significantly dependent on the utilisation of biodiversity for their economic and social welfare. Many of them depend directly on biodiversity for their livelihoods. Therefore it must be made possible for them to continue to use biodiversity as required.

This dissertation will illustrate that a paradigm shift towards the sustainable use of biodiversity can contribute to the conservation of biodiversity, and is called for today due to great pressures on natural resources that have developed recently. The regulation of the use of biodiversity is necessary, and the Addis Ababa Principles and Guidelines are meant to aid governments in achieving the sustainable use of biodiversity. The recommendations of the principles and guidelines and well as directives in terms of the CBD should be evident in the SADC legal framework pertaining to biodiversity. Therefore, determining to what extent the issue of sustainable use is incorporated into the SADC legal framework pertaining to biodiversity may contribute to biodiversity conservation in the SADC region.

The purpose of this dissertation is to establish if the SADC legal framework that relates to biodiversity provides for sustainable use of its biodiversity resources. As the PA paradigm has changed, evolving from a fortress-based conservation model into a model that allows for the sustainable use of biodiversity resources, the legal framework governing biodiversity resources needs to adapt accordingly. The relevant laws and protocols will be analysed to determine to what extent sustainable use has been incorporated into the SADC legal environmental framework. Where weaknesses are identified, recommendations for improving the SADC legal framework to facilitate the sustainable use of biodiversity will be presented. The findings of this research are expected to contribute to the conservation of biodiversity in the SADC.

## **2 Biodiversity**

### **2.1 *Global biodiversity***

#### *2.1.1 Introduction*

Biodiversity is important for sustaining all life forms on earth. It is a global concern as all people everywhere ultimately depend on the existence of biodiversity for survival. However, biodiversity is not consistently dispersed across the planet and is often found most densely in areas in developing countries, like SADC members.<sup>23</sup> Biodiversity has to be protected in these areas for the benefit of all. Biodiversity is not a simple sub-regional problem. Its loss affects the entire planet. The following section looks at what is happening with biodiversity on the global front.

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23 Beyerlin and Marauhn *International Environmental Law* 192.

### 2.1.2 *The status and importance of global biodiversity*

Miller and Spoolman<sup>24</sup> state that according to biologists biodiversity is an international concern, and they give four major reasons why species extinction must be prevented. Firstly, all the species on the planet play vital roles in the earth's life-support system. The species provide natural resources and services that keep people and other species living. Without the variety of different species in the life cycle, ecosystems will be disrupted, and this in turn would cause further extinctions. Wildlife tourism can generate large amounts of revenue. It takes much longer to regenerate biodiversity that is lost than it takes to destroy it.<sup>25</sup> If biodiversity continues to be lost future generations will not be able to use the natural resources and services enjoyed by present generations. The rate of mass extinctions at the moment is too rapid for regeneration to take place quickly enough to replace what is being lost. The fourth reason is that there is an ethical duty on people to preserve biodiversity, and each species deserves to be protected. The global rate of extinction at the moment is truly alarming, and much has to be done to reverse it. The planet is losing population, species and habitats. Biodiversity is in sharp decline. There has been an overall decline of 52% of biodiversity in terms of the Living Planet Index (LPI) from 1970 to 2010. According to the LPI, freshwater fish populations have declined by 76%, marine populations as a whole by 39%, and terrestrial populations by 39%.<sup>26</sup> There have been efforts to try to prevent further loss, but they have been ineffective and current efforts are failing.<sup>27</sup> The human demand on nature is exceeding the rate at which the earth can replenish its natural capital.<sup>28</sup>

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24 Tyler Miller and Spoolman *Living in the Environment* 192.

25 Tyler Miller and Spoolman *Living in the Environment* 192.

26 World Wildlife Fund 2014 *Living Planet Report 2014* <http://wwf.panda.org> 12.

27 United Nations Environment Programme 2012 <http://www.unep.org/geo/> 134.

28 World Wildlife Fund 2014 *Living Planet Report 2014* <http://wwf.panda.org> 32.

From a global perspective African countries also need help and support in their attempts to reduce the decline of biodiversity. All SADC members are party to the CBD, and therefore each member has obligations in terms of the CBD, while the SADC serves as a platform for sub-regional coordination, cooperation and reporting on biodiversity issues.<sup>29</sup> The objectives of the CBD are the conservation of biodiversity, the sustainable use of its components, and the equitable sharing of the benefits that derive from the use of genetic resources.<sup>30</sup> The CBD requires parties to create national biodiversity inventories, incorporate the protection of biodiversity into policies and programmes, and identify and monitor activities that potentially harm biodiversity. Most importantly, the CBD dictates that parties must implement biodiversity protection measures such as the formation of protected areas and the promulgation of regulations with incentives designed to promote the sustainable use of biodiversity. The CBD calls for parties to develop national biodiversity strategies and action plans.<sup>31</sup>

The main international biodiversity threats as per the Global Environmental Outlook Report 5 are habitat loss, climate change, over-exploitation, pollution, and the spread of invasive alien species.<sup>32</sup> Parties to the CBD adopted the Strategic Plan for Biodiversity 2011 – 2020 and the 20 Aichi Biodiversity Targets in 2010. The plan contains five strategic goals, and sets targets to achieve the 2050 vision whereby biodiversity is valued and conserved, and states that people must protect ecosystems.<sup>33</sup> Strategic goal B is to reduce the direct pressures on biodiversity and promote sustainable use. The Global Biodiversity Outlook 4 (GBO 4) reports that not much progress has been made under strategic goal B to reduce the threats to and promote the sustainable use of biodiversity.<sup>34</sup> The targets under strategic goal B include the halving or reduction of habitat loss, the sustainable management of aquatic living resources, sustainable

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29 SADC 2012 *Conventions* <http://www.sadc.int>

30 Article 1 of the CBD.

31 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 34.

32 United Nations Environment Programme 2012 <http://www.unep.org/geo/> 139.

33 United Nations Environment Programme 2012 <http://www.unep.org/geo/> 136.

34 Secretariat of the Convention on Biological Diversity 2014 <https://www.cbd.int> 49.

agriculture, aquaculture and forestry, pollution reduction, the prevention of the spread of invasive alien species, and the minimisation of the impacts on ecosystems vulnerable to climate change.

### *2.1.3 Synopsis*

The significance and importance of global conservation of biodiversity has been pointed out. Globally, biodiversity is in a rapid decline and each species plays a specific role in the ecosystem of each region. If there is a significant further loss of biodiversity the planet will start to degenerate and people will not be able to survive. It is extremely difficult to regenerate lost biodiversity. The CBD dictates that parties must implement biodiversity protection measures which include the establishment of protected areas as well as the issuing of regulations designed to provide for the sustainable use of biodiversity. Although the parties to the CBD adopted the Aichi Targets, which have sustainable use as a strategic goal, not much has been done this regard. The global threats to biodiversity have been identified, and many of them are similar to those in the SADC region, as will be set out below. The members of the SADC, as members of the CBD, have roles to play in the preservation of biodiversity for future generations on a global scale. The SADC must strive for compliance with the sustainable use requirements in the CBD. The planet faces a global biodiversity crisis. There is a need for action at a global level, which must start with national concerns and proceed to sub-regional and regional action.

## **2.2 *Factors that influence biodiversity conservation within the SADC***

### *2.2.1 Introduction*

This section aims to set out the history of the formation of the SADC. This is important for and relevant to the purposes of this dissertation in that it has affected the way in which the SADC has used and conserved its natural resources and biodiversity in the

past. It is also relevant as it explains some of the difficulties that the SADC faces in relation to biodiversity conservation. The issue of permanent sovereignty is deliberated, as it is a challenge that has plagued Africa for years and continues to present a challenge to the SADC. This deliberation is followed by a segment that will examine biodiversity in the region. The richness of the SADC's biodiversity cannot be overstated, which is one reason why the SADC as a sub-region has such an imperative duty to conserve the biodiversity found in the region. The need for conservation generally is evident from the global perspective as set out herein above. The need for the conservation of biodiversity in the SADC will be established below. The importance of biodiversity to the SADC and its people is immense, but biodiversity is in crisis in the region. The causes of this loss of biodiversity are traversed below. This research hopes to contribute towards better conservation (through sustainable use of biodiversity) within the SADC region, so these challenges must be explored in order to be able to make positive recommendations based on sound fact. A short synopsis will conclude this chapter.

### *2.2.2 The formation of the SADC*

In 1992 the SADC treaty was adopted and transformed the Southern African Development Co-ordination Conference (SADCC) into the SADC.<sup>35</sup> The SADCC's main aim and purpose had been to act as a safeguard against the existence of minority governments. The SADC's aims are broader and include the promotion of regional peace and security, the integration of the national economies in the region, and cooperation in many spheres, which would include in the conservation and use of natural resources, to a certain extent.<sup>36</sup> The SADC has evolved over the years in accordance with the vision statement, which talks of "a common future for all countries

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35 The members of the SADC are Angola, Botswana, DR Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. SADC 2012 *History and Treaty* <http://www.sadc.int>.

36 Viljoen *International Human Rights Law in Africa* 477.

and peoples of Southern Africa".<sup>37</sup> The organisation is determined to address issues like poverty alleviation and socio-economic development, as set out in the Regional Indicative Strategic Development Plan of 2004 (RISDP). The SADC is also committed to the objectives and goals of the New Partnership for Africa's Development (NEPAD), which also has its main objectives aimed at reversing Africa's marginalisation and poverty, and promoting development.<sup>38</sup> The NEPAD and the RISDP are also aligned with the Millennium Development Goals (MDG), which could be described as an international platform hosted by the United Nations to overcome extreme global poverty. The attempt to meet the MDG goals would benefit immensely from the sustainable use of biodiversity, as biodiversity provides a livelihood to many people in southern Africa.<sup>39</sup> The SADC realises that biodiversity plays a significant part in socio-economic development, sustainable development and poverty alleviation. One of the objectives of the SADC Treaty that is of importance to this dissertation is that of attempting to achieve the sustainable utilisation of natural resources and the effective protection of the environment.<sup>40</sup> What is unfortunate is that it is not clearly set out how this objective will be achieved. One could argue that some of the methods to achieve the objectives as set out in Article 2 may be used, such as the harmonisation of policies, the sharing of technologies and cooperation between member states. However, it appears that most of these methods aim at economic objectives. Article 21 also specifies that members must cooperate with regard to natural resources and the environment.<sup>41</sup>

### 2.2.3 *Permanent sovereignty*

Despite all the articles in the SADC Treaty that promote cooperation between member states related to natural resources, each member state may use its natural resources as

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37 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 29.

38 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 29.

39 Secretariat of the Convention on Biological Diversity 2004 <http://www.cbd.int> 1.

40 Article 5(1)(g) SADC Treaty.

41 Article 5(3)(3) SADC Treaty.

it pleases. This stems from international law and the usual practice that a sovereign country has clear legal control over its natural resources.<sup>42</sup> Permanent sovereignty can be defined as

the right of states to decide freely and independently on the use and exploitation of their natural resources.<sup>43</sup>

States may not use natural resources in such a way that causes transboundary harm to neighbouring states.<sup>44</sup> Permanent sovereignty has an even higher status amongst African nations which stems from decolonisation.<sup>45</sup> It was seen as important to reach economic equality between developing and developed nations, so that the developing nations could regain control over their natural resources from the colonial nations.<sup>46</sup> As a result, the developing nations tend to be more jealous of their sovereignty than Western or Northern countries, and are less flexible in matters relating to control over their natural resources.<sup>47</sup> In general the notion of permanent sovereignty has changed over the centuries in response to new forms of constitutionalism and, in the context of this dissertation, in the development of obligations arising from international environmental law relating to the conservation of biodiversity.<sup>48</sup> But these changes have had but slight effect in Africa, due to the aforementioned reasons. The prevalence of the system of permanent sovereignty is a real challenge to biodiversity conservation, especially in Africa. As insistence on permanent sovereignty is often the reason why a

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42 Bodansky 1995 *Vanderbilt Journal of Transnational Law* 625.

43 Scholtz 2008 Netherlands *International Law Review* 329. The Stockholm Declaration was the first international conference on international environmental protection. The Stockholm Declaration sets out permanent sovereignty in Principle 21 "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction." United Nations. 1972 <http://www.unep.org>.

44 Scholtz 2008 Netherlands *International Law Review* 329.

45 The notion of permanent sovereignty was developed to curtail colonists interfering with the economic affairs of newly independent African states. Scholtz 2005 *Macquarie Journal of International and Comparative Environmental Law* 21.

46 Scholtz 2008 Netherlands *International Law Review* 328.

47 Venter "Transfrontier Protection" 77.

48 Venter "Transfrontier Protection" 83.

nation does not comply with international environmental regulations. Such “eco-imperialism” hampers economic growth.<sup>49</sup> Biodiversity does not exist within man-made borders.<sup>50</sup> If one country has biodiversity as a priority on its agenda while a neighbour does not, this can be problematic. In this system, each member of the SADC has to depend on the other members independently conserving biodiversity within their demarcated territories.

#### 2.2.4 *The richness of the SADC’s biodiversity*

Southern Africa is richer in biodiversity than many other regions of the world. Many of the biological resources found in the SADC region have global significance.<sup>51</sup> This richness must be conserved as it is a common concern, as recognised in the preamble of the CBD. Some of the most diverse landscapes and seascapes in the world are to be found in the SADC, ranging from arid and semi-arid ecosystems to Mediterranean-type ecosystems, mountain ecosystems, and coastal and fresh-water ecosystems.<sup>52</sup> South Africa is the third most diverse country in the world, Malawi’s fresh-water fish which have high rates of endemism,<sup>53</sup> the species found in Madagascar are unmatched anywhere in the world, and the rich bird and butterfly life in Zambia and Tanzania contribute to the SADC’s biodiversity.<sup>54</sup> The SADC is very rich in biodiversity compared to the rest of the world, as 40% of its species are endemic.<sup>55</sup> Endemic species are found in only one specific area and nowhere else in the world. Some of these are under threat of extinction.<sup>56</sup> There are many biodiversity hotspots in the SADC region, specifically all

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49 Scholtz 2008 *Netherlands International Law Review* 330.

50 Scholtz 2005 *Macquarie Journal of International and Comparative Environmental Law* 21.

51 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 2.

52 SADC 2013 *Community Regional Biodiversity Action Plan* 10. SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 32.

53 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 32.

54 SADC 2013 *Community Regional Biodiversity Action Plan* 10.

55 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> iii. SADC 2012 *Biodiversity* <http://www.sadc.int>

56 Endemic species: species that are found in only one area. Such species are especially vulnerable to extinction. Tyler Miller and Spoolman *Living in the Environment* Glossary G5.

along the coasts. Biodiversity hotspots<sup>57</sup> are areas that are high in endemic species (plants and animals), and many of them are under immense threats. Hotspots need conservation due the fact that most of the world's biodiversity is found within these hotspots.<sup>58</sup> The biodiversity within the SADC sub-region transcends the national boundaries of the member states. Rivers flow from one country to another, pollutions travels, and animals migrate.<sup>59</sup> A hotspot is an area that qualifies in terms of specified criteria. Hotspots have a high percentage of plant life that is endemic and must have 30% or less of their original natural vegetation. Therefore a hotspot is irreplaceable and it must be threatened to qualify.<sup>60</sup> The SADC region has five of the eight spots in Africa.<sup>61</sup> The hotspots are the Cape floristic region, the coastal forests of eastern Africa, the Maputaland-Pondoland-Albany region, the succulent region in the Karoo, and the eastern Afromontane.<sup>62</sup> The only one of those hotspots that does not cross state lines is the Cape floristic region. There are thirty-five hotspots around the world. This is evidence that the SADC region is one of the most important and biodiverse regions in the world. Another factor is that many vulnerable human populations survive in hotspot areas. This is also true for the SADC region. The SADC hotspots therefore host high percentages of biodiversity but at the same time face serious threats and pressures, which include but are not limited to climate change, over exploitation, pollution and unsustainable use.<sup>63</sup> Action is required to conserve the rich biodiversity within the SADC.

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57 Conservation International 2014 *Hotspots What's a hotspot?*  
<http://www.conservation.org/How/Pages/Hotspots.aspx#>.

58 Conservation International 2014 *Hotspots Why hotspots matter*  
<http://www.conservation.org/How/Pages/Hotspots.aspx#>.

59 Most biodiversity issues with the SADC transcend the national borders of the member states.  
SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 2.

60 Conservation International 2014 *Hotspots*  
<http://www.conservation.org/How/Pages/Hotspots.aspx#>.

61 Lubbe "A legal appraisal" 204.

62 Lubbe *Yearbook of international Environmental Law* 129.

63 Lubbe "A legal appraisal" 204.

### 2.2.5 *The SADC's biodiversity crisis*

There is a crisis in the SADC, as it is losing biodiversity at a speedy rate due to pressures such as habitat loss and fragmentation, the introduction of genetically modified organisms, land degradation, worsening poverty, agricultural expansion, high rates of population growth, climate change, the introduction of invasive alien species and the overexploitation of and unsustainable trade in plant and animal species.<sup>64</sup> These pressures are worsened by other factors such as poor environmental governance, a lack of capacity and funds, political instability, a lack of appreciation of the importance of biodiversity, and unsustainable development.<sup>65</sup> The Regional Biodiversity Strategy recognises that there are certain challenges and constraints within the SADC region relating to biodiversity conservation including increased pressures on biodiversity due to limited livelihoods, inadequate monitoring of biodiversity and inventories, inadequate incentives for the conservation of biodiversity and ensuring that use is sustainable use, low levels of awareness and appreciation of biological resources, limited funding, inadequate research, limited attention to genetically modified organisms and invasive alien species and weak institutional and legal frameworks to carry out biodiversity conservation initiatives as constraints on biodiversity conservation.<sup>66</sup> The SADC has therefore recognised that the laws relating to biodiversity are inadequate. A major factor is that biodiversity is not being mainstreamed. No economic value is placed on biodiversity, and ecosystem services are not being paid for. Biodiversity is not considered at a macro-economic level when strategic planning decisions are made.

The evolution of biodiversity conservation in the SADC will be inspected below to further add to the understanding of why biodiversity is being lost at such a rapid rate.

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64 SADC 2013 *Community Regional Biodiversity Action Plan* 10.

65 SADC 2013 *Community Regional Biodiversity Action Plan* 10.

66 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 5.

## 2.2.6 *The socio-economic role of biodiversity in the SADC*

From a socio-economic point of view, biodiversity is imperative in the SADC. Most SADC economies are profoundly dependent on natural resources.<sup>67</sup> The Regional Biodiversity Strategy recognises that most gross domestic products (GDP) come from natural resources, and there are many poor people who have no other choice but to over-exploit the environment to survive.<sup>68</sup> The Regional Biodiversity Strategy identifies key biodiversity sectors in the SADC: forestry, wildlife, aquatic life and agriculture.<sup>69</sup> The key sectors are integral to socio-economic development in the region.<sup>70</sup> Biodiversity in the SADC underpins livelihoods in the region as most communities are dependent on the services provided by biodiversity. It provides food security, health and well-being, and supports tourism and fisheries.<sup>71</sup> It allows for and maintains economic development.<sup>72</sup> Its forests provide products and services which include industrial timber and timber products, fuel wood, non-timber forest products, and environmental services. The environmental services are clean water, climate regulation, soil and biodiversity conservation, nutrient cycling, carbon sequestration and watershed protection.<sup>73</sup> These services have been undervalued or not valued at all and therefore it cannot be said how much the forests contribute to the GDP of SADC countries. Large terrestrial mammals are the most important wildlife for economic purposes, although all wildlife should be protected. Wildlife makes use of vegetation much more efficiently than agricultural animals. Tourism contributes millions of dollars to the economies of the SADC region. Many people in the SADC consume animals for food.<sup>74</sup> Therefore large terrestrial mammals and wildlife are one of the top GDP contributors. Aquatic biodiversity is split into fresh water and marine biodiversity. Freshwater biodiversity is important for wetlands ecosystems, which also provide habitats for migratory bird species. The

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67 SADC 2013 *Community Regional Biodiversity Action Plan* 11.

68 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 2.

69 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 38.

70 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 38.

71 SADC 2013 *Community Regional Biodiversity Action Plan* 16.

72 SADC 2013 *Community Regional Biodiversity Action Plan* 17.

73 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 39.

74 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 42.

freshwater fish provide subsistence and commercial fishing for locals and tourism, which contributes to economic growth. Many people depend on fish for protein, and fishing therefore aids with food security.<sup>75</sup> Marine biodiversity similarly provides a source of food and protein, employment and economic growth to communities in providing for tourism (of the beautiful beaches and sport fishing) and exploiting minerals (such as oil and diamonds). Fish exports also earn countries millions of dollars.<sup>76</sup> Agro-biodiversity is an essential GDP contributor and many SADC countries export fruits and vegetables overseas. Agricultural biodiversity aids with unemployment, poverty, economic stability, food security and economic growth. Agriculture in the region often suffers due to the frequent occurrence of droughts, which force locals to consume natural resources for survival.<sup>77</sup> The SADC's biodiversity is vital as it supports poverty reduction and sustains human livelihoods and well-being through the provision of food security, supporting economic development, and promoting human health by providing clean air and water.

### 2.2.7 Synopsis

It is apparent that economic and social factors are the primary driving force in the SADC, and that environmental issues have gained importance over the years. It is evident that poverty alleviation and development are high priorities for the SADC, as can be seen in programmes and plans such as the MDG, RISDP and NEPAD. Biodiversity conservation in the region will therefore have to take into account the Community's obligations and goals as stated in the aforesaid plans and programmes. The sustainable use of biodiversity would greatly assist the SADC in addressing its economic difficulties and with poverty mitigation. Consequently, incorporating the sustainable use of biodiversity into the SADC's legal framework and policies would help to achieve major objectives of the Community. The SADC treaty has the sustainable utilisation of natural resources as an objective, but how this will be achieved is not suggested. It has been clearly illustrated that the citizens and governments in the region

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75 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 43.

76 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 45.

77 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 48.

use natural products for many reasons. The protocols that relate to biodiversity will be examined to determine if these protocols provide more clarity on this aspect. The historical aspects and underlying challenges in Africa must be kept in mind when considering the legal framework within the SADC relating to biodiversity and the sustainable use thereof. Permanent sovereignty negatively impacts on the use of natural resources and therefore it is a challenge for biodiversity conservation. It does not facilitate progressive biodiversity conservation as it does not allow for more modern forms of biodiversity conservation such as cross-border conservation and sustainable use. It does not acknowledge that biodiversity is part of ecological network that does not adhere to territorial state lines. These modern biodiversity conservation paradigms will be discussed in more detail below.

This section has illustrated that the SADC region is rich in biodiversity. The richness in terms of endemism in the hotspots is yet another factor indicating the need for conservation in this sub-region. It has also been pointed out that biodiversity is being lost at a rapid rate within the SADC. This suggests the urgency of the need for action in the form of conservation. There are many biodiversity hotspots in the SADC - five out of the eight in Africa, and there are only thirty-five biodiversity hotspots around the world. These hotspots are classified as such not only for their endemism but also due to the threats that the hotspots face. Considering the loss of biodiversity in the SADC and the importance thereof, the manner in which the products of biodiversity are consumed, valued and protected needs to be addressed. The causes of the loss of biodiversity have been identified. The causes range from governance to environmental causes. One of the causes recognised is that the SADC's laws relating to biodiversity are inadequate. There is a need to examine the Community's laws relating to biodiversity. Biodiversity is valuable to the SADC for its GDP contribution. Many SADC people depend solely on biodiversity for a living. Biodiversity in the region must clearly be conserved. This exploration of the sustainable use of biodiversity in terms of the law may therefore contribute to the conservation of biodiversity within SADC.

### **3 The sustainable use of biodiversity**

#### **3.1 Introduction**

As said above, people are destroying biodiversity at a much quicker rate than the earth can renew it. This is due to the unsustainable use being made of it. Biodiversity is being lost globally and within the SADC at an alarming rate. Its conservation has undergone many progressive changes so that it now includes communities and their use of it, under management, and with new holistic purposes. This paradigm shift allows far more for the use of biodiversity than before. The evolution of sustainable use started with the notion of consumptive utilisation. This means that species that are not threatened by extinction may be ethically used in accordance with certain criteria.<sup>78</sup> This notion has long standing in international law.<sup>79</sup> The history of sustainable use will be explored to indicate why this concept was needed. The idea of the sustainable use of biodiversity will be explored and defined in the section below. Its incorporation into the CBD will be considered, as well as other related international principles such as the Addis Ababa principles. The CBD and the Addis Ababa principles will be used as reference points when the SADC legal framework pertaining to biodiversity is examined in Chapter Four.

#### **3.2 Where did sustainable use originate?**

Sustainable use evolved from sustainable utilisation into sustainable use in the 1980s.<sup>80</sup> The 18<sup>th</sup> General Assembly of the International Union for the Conservation of Nature (IUCN) in 1990 marked the start of the “sustainable use initiative”.<sup>81</sup> At the General Assembly the congress affirmed that the sustainable use of wildlife could encourage conservation as long as certain safeguards were in place along with sufficient monitoring mechanisms. The safeguard mechanisms should ensure that wildlife

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78 Gillespie *Conservation, biodiversity and international law* 143.

79 Gillespie *Conservation, biodiversity and international law* 143.

80 Gillespie *Conservation, biodiversity and international law* 143.

82 Gillespie *Conservation, biodiversity and international law* 143.

populations could be maintained without affecting the ecosystem and in compliance with international and national legal regulations.<sup>82</sup>

The CBD was one of the positive consequences of the Earth Summit in Rio, which was held in 1992. The earth summit was based on exploring the concept of sustainable development. It emphasised the importance of the sustainable use of biodiversity and recognised that biodiversity is important to life on earth and what it provides for people.<sup>83</sup> The idea of sustainable use was further developed by the 1994 IUCN resolution 54, the “sustainability of Non-consumptive and Consumptive Uses of Wild Species” and in 1996 by resolution 1.39 in the “Sustainable Use Initiative”. In 2000 the IUCN adopted the Policy Statement on the Sustainable Use of Wild Living Resources in resolution 2.29.<sup>84</sup> This policy states that both the consumptive and non-consumptive use of biological diversity are essential to the economies, cultures, and well-being of all nations and peoples and that sustainable use can meet human needs and conserve biodiversity simultaneously.<sup>85</sup>

The World Summit on Sustainable Development (WSSD) in 2002 reaffirmed that natural resources must be managed in an integrated and sustainable manner. It was further held that national and regional strategies needed to be implemented to prevent global resource degradation and to protect ecosystems through integrated management.<sup>86</sup>

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82 International Union for Conservation of Nature (IUCN) 1990 <https://portals.iucn.org>. Gillespie *Conservation, biodiversity and international law* 143.

83 Secretariat of the Convention on Biological Diversity 2004 <http://www.cbd.int> 1.

84 Gillespie *Conservation, biodiversity and international law* 143.

85 International Union for Conservation of Nature (IUCN) 2000 <https://www.iucn.org>. Gillespie *Conservation, biodiversity and international law* 143.

86 United Nations 2002 <http://www.unmillenniumproject.org> 22.

The ICUN and its sustainable use initiatives and policies have had the most influence on the CBD.<sup>87</sup> As will be explained below, sustainable use is one of the fundamental objectives of the CBD.

### **3.3 The CBD and sustainable use**

The CBD included “sustainable use” after many other, older conventions of the 1970s had focused on “conservation”.<sup>88</sup> This is in keeping with the paradigm shift from the classical models to modern models. The CBD defines sustainable use as the use of the components of biodiversity in such a manner as to prevent the long-term loss and decline of biodiversity and to maintain the potential of biodiversity to meet the needs of the present and future generations.<sup>89</sup> The CBD will be examined from an international perspective because all SADC members are party to it and because it is the primary international instrument relevant to biodiversity.<sup>90</sup>

In 2002 at the 5<sup>th</sup> conference of the parties (COP) of the CBD, the parties held that sustainable use should be a priority and a cross-cutting issue.<sup>91</sup> This was at the time of the WSSD, where sustainable use was endorsed as said above. To put the sustainable use of biodiversity in operation in terms of the CBD, in 2003 the COP requested the executive secretary of the CBD to develop a set of practical principles and operational guidelines in this context. These principles and guidelines would constitute recommendations to parties and governments as to how to achieve the sustainable use of biodiversity.<sup>92</sup> These are the 2004 Addis Ababa<sup>93</sup> principles and guidelines for the sustainable use of biodiversity. There are fourteen principles that are very wide and

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87 Gillespie *Conservation, biodiversity and international law* 144.

88 Beyerlin and Marauhn *International Environmental Law* 193.

89 Article 2 of the *Convention on Biological Diversity (1992)*.

90 Lubbe *Yearbook of international Environmental Law* 131.

91 Gillespie *Conservation, biodiversity and international law* 144.

92 Secretariat of the Convention on Biological Diversity 2004 <http://www.cbd.int> 2.

93 Secretariat of the Convention on Biological Diversity 2004 *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* <http://www.cbd.int> 8 -21.

flexible and cover all aspects of the managing of conservation. The principles do not differentiate between the consumptive or non-consumptive use of species, and clearly endorse the consumptive use of species if specific criteria are met.<sup>94</sup> The principles take into consideration requirements related to policies, laws and regulations; the management of biological diversity; socio-economic conditions; and information dissemination, research and education.<sup>95</sup> From a legal perspective the principles call for the development of laws, policies and governance frameworks that support the sustainable use of biodiversity and any laws that do not contribute to or undermine biodiversity conservation should be done away with.<sup>96</sup> The principles support the mainstreaming of the topic of biodiversity in all international and national policies. All policies should take into account the current and potential values derived from the use of biological diversity, intrinsic and other non-economic values of biological diversity, and the market forces affecting its value and use.<sup>97</sup> In terms of the management of the sustainable use of biodiversity the principles recommend the drafting of adaptive management plans with sustainable use goals that minimise ecological impacts and that are compatible with the ecological and socio-economic scales of the use and its impact.<sup>98</sup> The Addis Ababa principles advise that interdisciplinary research on use and

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94 Gillespie *Conservation, biodiversity and international law* 145.

95 Secretariat of the Convention on Biological Diversity 2004 <http://www.cbd.int> 3.

96 Principles 1, 2 and 3 of the Addis Ababa Principles. Principle 1: Supportive policies, laws, and institutions are in place at all levels of governance and there are effective linkages between these levels. Principle 2: Recognizing the need for a governing framework consistent with international, national laws, local users of biodiversity components should be sufficiently empowered and supported by rights to be responsible and accountable for the use of the resources concerned. Principle 3: International, national policies, laws and regulations that distort markets which contribute to habitat degradation or otherwise generate perverse incentives that undermine conservation and the sustainable use of biodiversity should be identified and removed or mitigated. Secretariat of the Convention on Biological Diversity 2004 <http://www.cbd.int> 8 -21.

97 Principle 10 of the Addis Ababa Principles. Secretariat of the Convention on Biological Diversity 2004 *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* <http://www.cbd.int> 8 -21.

98 Principles 4, 5 and 7 of the Addis Ababa Principles. Principle 4: Adaptive management should be practised, based on: Science and traditional and local knowledge; iterative, timely and transparent feedback derived from monitoring the use, environmental, socio-economic impacts, and the status of the resource being used; and adjusting management based on timely feedback from the monitoring procedures. Principle 5: Sustainable use management goals and practices should avoid or minimize adverse impacts on ecosystem services, structure and functions as well as other components of ecosystems. Principle 7: The spatial and temporal scale of management should be compatible with the ecological and socio-economic scales of the use and its impact.

interdisciplinary governance and management on all levels should be implemented along with multinational cooperation and decision making.<sup>99</sup> The principles further encourage education of the public leading to public awareness of the sustainable use of biodiversity, and support for the needs of indigenous people with regard to the use of biodiversity and equitable distribution.<sup>100</sup> The minimisation of the waste of biological resources and the internalisation of the costs of protecting biodiversity must be facilitated.<sup>101</sup>

As stated above, in 2010 the parties to the CBD adopted the Strategic Plan for Biodiversity 2011 to 2020 and the 20 Aichi Biodiversity Targets. Strategic goal B of the targets is to reduce the direct pressures on biodiversity and promote sustainable use.

Article 6 of the CBD deals with general measures for conservation and sustainable use. This article deals with the implementation of the CBD in relation to sustainable use. It directs that parties must develop strategies, plans and programmes for the sustainable

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Secretariat of the Convention on Biological Diversity 2004 *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* <http://www.cbd.int> 8 -21.

99 Principles 6, 8 and 9 of the Addis Ababa Principles. Principle 6: Interdisciplinary research into all aspects of the use and conservation of biological diversity should be promoted and supported. Principle 8: There should be arrangements for international cooperation where multinational decision-making and coordination are needed. Principle 9: An interdisciplinary, participatory approach should be applied at the appropriate levels of management and governance related to the use. Secretariat of the Convention on Biological Diversity 2004 *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* <http://www.cbd.int> 8 -21.

100 Principles 12 and 14 of the Addis Ababa Principles. Principle 12: The needs of indigenous and local communities who live with and are affected by the use and conservation of biological diversity, along with their contributions to its conservation and sustainable use, should be reflected in the equitable distribution of the benefits from the use of those resources. Principle 14: Education and public awareness programmes on conservation and sustainable use should be implemented and more effective methods of communications should be developed between and among stakeholders and managers. Secretariat of the Convention on Biological Diversity 2004 *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* <http://www.cbd.int> 8 -21.

101 Principles 11 and 13 of the Addis Ababa Principles. Principle 11: Users of biodiversity components should seek to minimize waste and adverse environmental impact and optimize benefits from uses. Principle 13: The costs of management and conservation of biological diversity should be internalized within the area of management and reflected in the distribution of the benefits from the use. Secretariat of the Convention on Biological Diversity 2004 *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity* <http://www.cbd.int> 8 -21.

use of biodiversity or amend any existing programmes and/or plans to incorporate the sustainable use of biodiversity. All plans should be integrated with regard to the sustainable use of biodiversity.<sup>102</sup> Article 10 of the CBD regulates the sustainable use of the components of biological diversity. This article urges parties to integrate sustainable use into decision making, to support local populations and the customary use of biodiversity, and to adopt measures to minimise the impacts on biodiversity.<sup>103</sup>

### **3.4 Synopsis**

On examination of the sustainable use of biodiversity it is apparent that people need biodiversity and will continue to use it. It seems obvious that the regulated use of biodiversity may aid with resolving the problems plaguing biodiversity conservation. It has been identified that sustainable use has been on the environmental agenda for quite some time, and that proper monitoring is an essential element for the proper sustainable use of biodiversity. People are using biodiversity at a rate quicker than the earth can replenish it. It has also been pointed out above that in the SADC people use biodiversity for survival more than others do elsewhere. Over the years there has been a realisation that biodiversity is intrinsic to the economies, cultures, and well-being of all nations and peoples, and that the sustainable use of biodiversity may do more to conserve it than biodiversity conservation. Modern PA systems allow for sustainable use much more than the classic models. The definition of sustainable use as found in

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102 Each party shall in accordance with its particular conditions and capabilities (a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the Contracting Party concerned; and (b) Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies. Article 6 of the *Convention on Biological Diversity (1992)*.

103 Each Contracting Party shall, as far as possible and as appropriate:  
(a) Integrate consideration of the conservation and sustainable use of biological resources into national decision-making;(b) Adopt measures relating to the use of biological resources to avoid or minimize adverse impacts on biological diversity;(c) Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements;(d) Support local populations to develop and implement remedial action in degraded areas.

the CBD will serve as a basis for examining the SADC legal framework in relation to biodiversity, to determine to what extent it has incorporated sustainable use into its biodiversity governance and legal regime. Articles 6 and 10 of the CBD will serve as guide to determine if SADC is doing what is set out in these articles in relation to the implementation and accomplishment of its CBD duties. The Addis Ababa principles and guidelines will also be of assistance in this regard. These principles and guidelines should be evident within the SADC legal framework that pertains to biodiversity, due to the fact that the implementation of the principles and guidelines could assist governments with achieving the sustainable use of biodiversity. Chapter Four below will examine the SADC legal environmental biodiversity framework by using the CBD and Addis Ababa principles and guidelines as reference points.

### **3.5 *An example of the incorporation of sustainable use in practice: protected areas***

#### **3.5.1 *Introduction***

The evolution of protected areas<sup>104</sup> (PAs) is relevant to this dissertation, as sustainable use has been incorporated in the PAs as they have evolved. PAs have been pivotal in protecting the planet's landscapes and seascapes.<sup>105</sup> The different stages of evolution of the PA models will be discussed to illustrate the incorporation of sustainable use in them through the PA paradigm shift. The chapter will also show that PAs have adapted according to global changes.<sup>106</sup> Biodiversity has been protected by protected areas for centuries. PAs are the traditional method of protecting biodiversity. PAs have also been

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104 A protected area is a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. International Union for the Conservation of Nature (IUCN) 2013 <https://www.iucn.org>

105 United Nations Environmental Programme 2014 <http://www.protectedplanet.net> 1.

106 United Nations Environmental Programme 2014 <http://www.protectedplanet.net> 5.

referred to as the corner stone of biodiversity.<sup>107</sup> PAs provide us with ecosystem services and PAs conserve ecosystems and species. PAs are therefore beneficial to people as well as to the preservation of biodiversity.<sup>108</sup> The importance of PAs is recognised in Article 8 of the CBD. PAs also make valuable contributions in terms of the Aichi Targets, as discussed above.<sup>109</sup> The evolution of PAs can be categorised into three models; the classic model, the modern model and the emerging model.<sup>110</sup>

### 3.5.2 *The classic model*

The classic model has been described as fortress-type conservation. This PA model did not allow for any use of the natural resources within the area, which was only a host to plants and animals.<sup>111</sup> These areas existed entirely isolated from neighbouring areas.<sup>112</sup> These PAs were set up mainly as parks for game viewing and the pleasure of the visitors, and not for any more functional purpose.<sup>113</sup> They were not set up for cultural, economic or scientific purposes.<sup>114</sup> The PAs were managed for visitors by a central government, which would fund the PA and would not consider local people in any planning regarding the area.<sup>115</sup> These areas were not of any global importance but were thought of only as national assets.<sup>116</sup> Sustainable use does not feature at all in the classic model.

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107 Ervin *et al* 2010 <http://www.cbd.int> 9.

108 United Nations Environmental Programme 2014 <http://www.protectedplanet.net> 1.

109 United Nations Environmental Programme 2014 <http://www.protectedplanet.net> 2.

110 Ervin *et al* 2010 <http://www.cbd.int> 9.

111 Lubbe "A legal appraisal" 211.

112 Ervin *et al* 2010 <http://www.cbd.int> 9.

113 Ervin *et al* 2010 <http://www.cbd.int> 10.

114 Lubbe "A legal appraisal" 212.

115 Ervin *et al* 2010 <http://www.cbd.int> 10.

116 Ervin *et al* 2010 <http://www.cbd.int> 10.

### 3.5.3 *The modern model*

The modern model, which originated in the 1970s, evolved from the classic PA and the recognition that local communities needed these areas too. In this model the PAs are not solely run and funded by the government and the planning has become more inclusive. The modern PA is not as isolated as the older version. It is no longer seen as a conservation island. Instead, an ecological network has been acknowledged.<sup>117</sup> The economic, social and ecological values of these areas have started to emerge. The PAs are now managed with locals as among the managers, co-managing with professionals and representatives of various spheres of government. This era has marked a change, in that biodiversity is seen as a global concern over and above its value to local communities.<sup>118</sup> There is a shift towards sustainable use in this model, as people start to realise the immense dependence of local communities on these areas, as well as the ecological importance.

### 3.5.4 *The emerging model*

The emerging models appeared in the mid-2000s. Scientists around the globe point out that human need has reached a tipping-point with biodiversity, with catastrophic prospects in sight. The emerging models aim to support critical life support systems, ecosystems services, promote climate change adaptation, and bolster adaptation and resilience.<sup>119</sup> These types of PAs are managed by many different parties with a wide range of governance models. The financing has progressed to include innovative finance mechanisms which embrace the mainstreaming of biodiversity into national and local economies.<sup>120</sup> The idea that PAs of this sort are part of an ecological network has been taken further the extent that the existence of such PAs has become a factor in the

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117 Ervin *et al* 2010 <http://www.cbd.int> 10.

118 Ervin *et al* 2010 <http://www.cbd.int> 10.

119 Ervin *et al* 2010 <http://www.cbd.int> 10.

120 Ervin *et al* 2010 <http://www.cbd.int> 10.

planning of economies, sectoral plans such as those relating to land-use, and planning related to climate change, disaster mitigation, energy, social development, transport and infrastructure.<sup>121</sup> Such PAs are viewed as global assets that have social, economic and ecological value. Better long-term planning for future generations is also an improvement, as opposed to the short-term planning that prevailed in the older models.<sup>122</sup> This is the model that really starts to incorporate sustainable use into its PA philosophy.

### 3.5.5 *Newer emerging model*

There are even newer emerging models of PAs: the post-2010 PA models. These models have emerged in response to drivers like climate change, the MDGs, the perception that natural resources are finite, the perception of the value of ecosystems services, and the global financial crisis.<sup>123</sup> Much more is expected from such PAs than ever before in ecological, social and economic terms. Ecologically, this PA must provide habitats for people, plants and animals, help mitigate climate change and provide ecosystem services.<sup>124</sup> Socially communities must be able to depend on this PA. It must contribute to poverty alleviation, address food shortages, and serve as protection from climate change. In economic terms, these PAs must be self-sustaining and contribute to local and national economies mainly through tourism. These are required to provide many natural resources products from their forests and aquatic ecosystems.<sup>125</sup> It is evident that sustainable use features strongly in this model.

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121 Ervin *et al* 2010 <http://www.cbd.int> 10.  
122 Ervin *et al* 2010 <http://www.cbd.int> 10.  
123 Ervin *et al* 2010 <http://www.cbd.int> 13.  
124 Ervin *et al* 2010 <http://www.cbd.int> 14.  
125 Ervin *et al* 2010 <http://www.cbd.int> 14.

### 3.5.6 Transfrontier conservation areas

Transfrontier conservation areas<sup>126</sup> (TFCAs) have developed through the evolution of this PA model, and are a specific form of PA.<sup>127</sup> The TFCA may be classified under the modern PA model or the emerging PA model.<sup>128</sup> The purpose of the TFCA is not to be a pretty nature reserve that is cut off from its surroundings. TFCAs connect ecological networks that were previously divided by the “island” approach to conservation.<sup>129</sup> Most notably, this model recognises that people and nature interact and are connected; it is far more holistic than previous models in its approach.<sup>130</sup> The TFCA has poverty alleviation and securing ecological integrity as its main goals. This is a clear shift away from the classical models, in that social, ecological and economic factors are considered with respect to future generations.<sup>131</sup> The TFCA therefore definitely allows for people to equitably make use of natural resources within that area.<sup>132</sup> The management of a TFCA therefore has to be in sync with social, ecological and economic impulses, which synchronisation can be achieved by harmonising laws and policies, recognising traditional knowledge and conservation methods, and engaging in equitable conflict resolution. Another notable shift is that TFCAs push the boundaries of state sovereignty.<sup>133</sup> The TFCA is clearly part of a dynamic paradigm shift that has the potential to reach new biodiversity conservation pinnacles. Within the SADC region many of the hotspots transcend the borders between the SADC members. The management of hotspots therefore needs to occur within the TFCA model to ensure that there is cooperation between states, and in keeping with the notion that these PAs are

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126 A transfrontier conservation area may be defines as “an area of land and/or sea that straddles one or more borders between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limit of national sovereignty or jurisdiction, whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed co-operatively through legal or other effective means.” Global Transboundary Conservation Network 2011 <http://tbpa.net>.

127 Lubbe “A legal appraisal” 210.

128 Lubbe “A legal appraisal” 211.

129 Lubbe “A legal appraisal” 213.

130 Lubbe “A legal appraisal” 212.

131 Lubbe “A legal appraisal” 211.

132 Lubbe “A legal appraisal” 213.

133 Lubbe “A legal appraisal” 210.

islands not and are part of an ecological network that is entwined with human socio-economic needs and also to protect the ecological sensitivity of these areas.

### 3.5.7 Synopsis

PAs are the cornerstone of biodiversity conservation. It is evident that pressures on biodiversity have increased and a paradigm shift has occurred in order to allow for the sustainable use of biodiversity and to meet the demands placed on biodiversity. The above discussion shows that there has been a notable paradigm shift from the classical PA models to the modern and emerging models, especially in the case of TFCAs. The most prominent change is that PAs are no longer fortresses, isolated islands that do not recognise the relationship between people and natural resources. The emerging models, especially the TFCA model, identify the connectedness between man and nature and allow for holistic approaches that incorporate much improved ecological, social and economic approaches. The new paradigm of PAs recognises that they are part of a planetary life-support system.<sup>134</sup> PAs need enabling policies, legislation, legal frameworks and incentives to exist and function. This is essential for their effective establishment and management.<sup>135</sup> Sustainable use will therefore be a prominent feature in the emerging PAs. This is due to the fact that PAs will be able to reduce poverty and sustain people's livelihoods through sustainable use.<sup>136</sup> Having said that, the SADC's natural resource policies, PA policies and legislation need to undergo a paradigm shift in accordance with the developments described above; more specifically, a paradigm shift that facilitates the sustainable use of biodiversity.

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134 Ervin *et al* 2010 <http://www.cbd.int> 7.

135 Ervin *et al* 2010 <http://www.cbd.int> 17.

136 Ervin *et al* 2010 <http://www.cbd.int> 20.

## **4 The SADC legal and policy framework relating to biodiversity**

### **4.1 Introduction**

Article 5 of the SADC Treaty proposes to achieve the sustainable utilisation of natural resources and effective environmental protection.<sup>137</sup> This treaty further provides for cooperation between member states regarding the natural resources found within this sub-region. The Treaty has given rise to several protocols that deal with the environment. There is no one single protocol or piece of sub-regional legislation that is dedicated to biodiversity conservation. Instead, there are a number of protocols that may assist with biodiversity conservation within the SADC region. There is also the relevant soft law in terms of policy. Considering the importance of biodiversity on a global scale as well as on a sub-regional scale; the relevant hard and soft law must provide for the elements of the sustainable use of biodiversity. The section below will examine the SADC protocols and soft law that are relevant to biodiversity conservation to determine to what extent the sustainable use of biodiversity is allowed for and incorporated. The SADC region has a Biodiversity Strategy and a Biodiversity Action Plan (SADC BAP). These two policy documents will also be inspected on the same terms. The hard and soft law will be examined to see if the elements of sustainable use as per the CBD definition, the obligations in terms of Articles 6 and 10 of the CBD, and the Addis Ababa principles and guidelines feature or are provided for. A synopsis of the findings on the protocols and policy documents is provided to conclude this chapter.

### **4.2 The Protocol on Forestry**

Forests are the host of a wide spectrum of biodiversity. Forest biodiversity consists of trees, plants, animals and micro-organisms.<sup>138</sup> The SADC region has many different

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137 Article 5 of *Treaty of the Southern African Development Community* (1992).

138 In the annex to decision II/9, the Conference of the Parties to the CBD recognized that: "Forest biological diversity results from evolutionary processes over thousands and even millions of years which, in themselves, are driven by ecological forces such as climate, fire, competition and disturbance. Furthermore, the diversity of forest ecosystems (in both physical and biological

types of forests and is rich in forest biodiversity. The different types are tropical, mangrove, afro-montane, Zambezi teak, Miombo woodlands and Mopane woodlands.<sup>139</sup> These forests cover up to 33% of the region<sup>140</sup> and provide food, medicines, fuels for cooking and resources to build shelter.<sup>141</sup> They also provide clean water, clean air, nutrient recycling, carbon sequestration, climate regulation and soil.<sup>142</sup> They contribute to the economies of the SADC members and are often of cultural and social importance to the SADC people.<sup>143</sup> They have an important role to play in economic integration and in assisting with poverty mitigation.<sup>144</sup> To date the worth of the forests in the SADC region has been undervalued.<sup>145</sup> They face many threats such as uncontrolled destruction due to the demand for wood fuel demands and new fields for agricultural purposes.

The 2002 *Protocol on Forestry*<sup>146</sup> aims to protect and manage the forests within the SADC for the benefit of the people in the region.<sup>147</sup> This protocol recognises that forests span across borders and are transboundary in nature.<sup>148</sup> It states that it shall have application, *inter alia*, to activities that relate to the sustainable management and utilisation of all types of forests, trees and trade in forest products throughout the region.<sup>149</sup>

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features) results in high levels of adaptation, a feature of forest ecosystems which is an integral component of their biological diversity. Within specific forest ecosystems, the maintenance of ecological processes is dependent upon the maintenance of their biological diversity.” Secretariat of the Convention on Biological Diversity Date Unknown <http://www.cbd.int>

139 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 40.

140 Ruppel 2012 *Southern African Development Community Law Journal* 254.

141 SADC 2012 *Forests* <http://www.sadc.int>

142 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 39.

143 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 39.

144 Lubbe “A legal appraisal” 219.

145 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 39.

146 The 2002 *Protocol on Forestry*. <http://www.sadc.int>.

147 Ruppel 2012 *Southern African Development Community Law Journal* 254.

148 Ruppel 2012 *Southern African Development Community Law Journal* 254.

149 Article 2 of the 2002 *Protocol on Forestry*.

Immediately it can be noted that no definition of sustainable use or sustainable utilisation is provided for in this protocol. Sustainable forest management is defined as

The management and development of all types of forests and trees in a manner that ensures that the ecological functions of the forest are maintained and that the ecological, economic, social and aesthetic value of the forest to current and future generations is not impaired.<sup>150</sup>

This definition seems to address some of the elements of sustainable use as described above, but in terms of forests only. In terms of Article 3, one of the objectives of this protocol is to promote the sustainable management and utilisation of all types of forests and trees. Article 3 also promotes trade in forest products, which can be seen as a form of utilisation. This recognises that people and the forests are connected and that people need the forests for survival. Article 3 further strives to achieve effective protection of the environment and safeguard the interests of present and future generations, which is important, because if one examines the definition of sustainable use as provided for in the CBD, it aims at biodiversity use for present and future generations.<sup>151</sup> The objective seems to be to provide for the sustainable use of forest biodiversity. One of the guiding principles of the protocol states that parties must protect and use forests in such a way as to maintain them so that they can meet people's present and future needs.<sup>152</sup>

This shows that sustainable use is one of the guiding principles in this protocol. The protocol furthermore instructs parties to recognise that communities are entitled to be involved in managing the forests and forest resources and to share in the use of forest products.<sup>153</sup> This indicates that the protocol is up to date in terms of the evolution of PAs as discussed above, which includes the realisation that communities make use of natural resources found in protected areas and should be more involved in the management thereof. The parties to the protocol are required as far as possible to collaborate in establishing a regional data base that documents trends and the status

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150 Article 1 of the 2002 *Protocol on Forestry*.

151 Article 3(1) of the 2002 *Protocol on Forestry*.

152 Article 4(3) of the 2002 *Protocol on Forestry*.

153 Article 4(10) of the 2002 *Protocol on Forestry*.

*inter alia* of the use of forest resources. This is a further recognition of the fact that forest resources are used, and an attempt to manage that use, but there is no suggestion in the protocol of what should happen if unsustainable use is recorded. In any event, there does not seem to be any proof that such a regional database has in point of fact been established.

Community-based forest management is specifically provided for in Article 12. This section instructs parties to allow for local people and communities to benefit collectively from the use of forest resources by the adoption of local policies and mechanisms.<sup>154</sup> It is unfortunate that this section does not use the words “sustainable use” and only uses the word “use”. The section states that parties must adopt policies and mechanisms for the use (rather than the sustainable use) of forest resources. It is important that the word “sustainable” should have been incorporated herein to allow for use that is consistent with the definition of sustainable use as per the CBD, as discussed above, to ensure that the biodiversity in the forests is used at a rate that is considerate of future as well as the present generations.

Article 13 deals with the participation of women in sustainable forest management. Women play an important role in the use of the natural resources provided by forests, they normally collect firewood, fetch water and gather plants for food. Women could definitely contribute to the sustainable use of biodiversity in terms of using forest resources, and perhaps this article could have included a section to facilitate policies and mechanisms that specifically deal with women and the sustainable use of forest natural resources and therefore biodiversity.

Article 14 deals with transboundary forests and allows for parties to enter into agreements and establish programmes that facilitate the cooperative and integrated

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154 Article 12(a) of the 2002 *Protocol on Forestry*.

management of transboundary forests and protected areas. As indicated above, TFCAs are among the more modern and emerging PAs, and allow for more sustainable use than other types of PAs. Transboundary forests may in that way facilitate the sustainable use of biodiversity, if properly regulated in those areas. TFCAs are a form of biodiversity conservation. This provision is very important as it is an indication of TFCAs and transfrontier biodiversity conservation; however it is unfortunate that there is no explanation or meaning given to the references to integrated or cooperative governance, nor does this provision prescribe what should be in the agreements.<sup>155</sup> Therefore this provision has the potential to include the sustainable use of forest biodiversity, if these agreements were to include sustainable use.

Article 15 deals with the protection of forests. The parties are required to institute measures to address natural and human threats to forests. These measures include legislative, administrative and enforcement measures. Of importance to this research is Article 15(a). This provision states that parties must take steps to control human activities that threaten forests in the form of land and natural resource-use practices that are in conflict with sustainable forest management practices. This provision may then indirectly provide for the sustainable use of the forest biodiversity, if one considers the definition of sustainable forest management. It may provide for the sustainable use of the natural resources of the forest. It aims to prevent unsustainable use of natural forest resources. There are no specifics as to how this should be achieved in terms of the measures listed. Perhaps an annexure to this protocol that specifically deals with how to improve sustainable use and prevent unsustainable use could be drafted. This annexure could specifically deal with the human use of natural forest resources that is consistent with sustainable forest management. This may provide guidance as to which measures to institute and how to implement them.

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155 Lubbe "A legal appraisal" 219.

Article 16 deals with traditional forest-related knowledge. As illustrated above in principle 14 of the Addis Ababa principles, adaptive management must be based on traditional knowledge as well as scientific knowledge. Lubbe<sup>156</sup> expresses the view that it is unfortunate that this provision does not expand on the measures to be instituted for implementation, nor are any specifics given for the application of this provision. This is discouraging, because the conservation of biodiversity is intertwined with action arising from traditional knowledge.

Article 17 is of importance as it deals with a forest's genetic resources. It ensures access to the genetic resources of the forests as well as the sharing of the related benefits. It advises that parties must develop a regional and harmonised approach in terms of national legislation for the use of forests' genetic resources. Such resources will include forest biodiversity. This provision could have used the words "sustainable use" where it has used only the word "use", thus making the preservation of natural genetic resources a priority for the present and future generations.

Article 18 regulates industry, trade and investment for those parties who have substantial forest-based industries. This provision encourages associations to promote the objects of the protocol, community participation, the promotion of sustainable forest management, sustainable trade in forest products, the minimisation of environmental damage through forestry-related trade and harvesting, and the elimination of illegal trade in forest products and protected species. This aims to give effect to sustainable development on paper, at least.<sup>157</sup> The protocol does not contain sanctions for non-compliance of member states.

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156 Lubbe "A legal appraisal" 219.

157 Lubbe "A legal appraisal" 220.

Article 19 hopes to create capacity-building and public awareness to support the objectives of the protocol. This will therefore incorporate the sustainable utilisation, as set out in the objectives, of the natural resources provided by the forests. This is a constructive move, as it is recommended by the Addis Ababa Principles.

#### **4.3 The Protocol on Wildlife Conservation and Law Enforcement**

As explained above, Africa's wildlife is the motive for the much-needed tourism in the SADC region, which provides livelihoods to many SADC citizens. Wildlife is a substantial contributor to the SADC GDP.<sup>158</sup> Many wildlife species that are found in SADC are endemic. The 1999 *Protocol on Wildlife Conservation and Law Enforcement* applies to the conservation of and sustainable use of wildlife resources, excluding forestry and fishery resources.<sup>159</sup> The protocol aspires to establish common approaches to the conservation and sustainable use of wildlife and to assist with law enforcement and the protection of wildlife within each state party's national jurisdiction.<sup>160</sup> There is only one reference to biodiversity in the protocol, and it is to be found in the preamble, which states that the heads of state are aware of the fact that the sustainable use of biodiversity contributes to economic development as well as to the conservation of biodiversity.<sup>161</sup> Because wildlife makes up a major component of biodiversity, the sustainable use thereof can accordingly contribute to biodiversity conservation.<sup>162</sup> This protocol states that sustainable "means use in a way and at a rate that does not lead to the long-term decline of wildlife species."<sup>163</sup>

This definition could be amended to include "maintaining the wildlife to meet the needs of the present and future generations". The definition would have been more in line with

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158 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 2.

159 Article 2 of the *Protocol on Wildlife Conservation and Law Enforcement*.

160 Ruppel 2012 *Southern African Development Community Law Journal* 260.

161 Preamble of the *Protocol on Wildlife Conservation and Law Enforcement*.

162 Lubbe *Yearbook of international Environmental Law* 141.

163 Article 1 of the *Protocol on Wildlife Conservation and Law Enforcement*.

the CBD's definition of sustainable use, if that were the case. The fact that sustainable use has been defined is constructive, as this indicates that it will feature throughout the protocol. It is disappointing that the protocol does not use the term "biodiversity use and conservation" as opposed to "wildlife use and conservation", as the former is much more holistic and inclusive.<sup>164</sup>

Article 3 lists the main principles of the protocol: the parties must ensure the practice of conservation and sustainable use in their respective jurisdictions and ensure that wildlife is not damaged. To attain the principles, the parties must cooperate to develop common approaches to conservation and the sustainable use of wildlife. The parties must also collaborate to attain the objectives of the international agreements which are applicable to conservation and sustainable use.<sup>165</sup> The objectives are dealt with in Article 4. The main objective is to establish a framework for the respective national laws, to develop common approaches to the conservation and sustainable use of wildlife resources, and to assist with effective enforcement.<sup>166</sup> Further objectives include the promotion of the sustainable use of wildlife, the facilitation of the harmonisation of the legal instruments that deal with sustainable use and conservation, the promotion of wildlife law enforcement, the facilitation of information exchange, to build capacity for management, conservation and enforcement, to establish transfrontier conservation areas, and to facilitate community involvement.<sup>167</sup> Article 5 provides for the establishment of the Wildlife Sector Technical Coordinating Unit (WSTCU). It appears that this institution is non-functional at this stage, which is most unfortunate, as this is the primary instrument to oversee the joint governance of wildlife within the SADC region.<sup>168</sup>

Article 6 covers the aspect of legal instruments for the conservation and sustainable use of wildlife. It instructs parties to adopt and enforce legislation that ensures the

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164 Lubbe "A legal appraisal" 224.

165 Article 3(2) of the *Protocol on Wildlife Conservation and Law Enforcement*.

166 Article 4 of the *Protocol on Wildlife Conservation and Law Enforcement*.

167 Article 4(2) of the *Protocol on Wildlife Conservation and Law Enforcement*.

168 Lubbe "A legal appraisal" 224.

sustainable use of wildlife resources.<sup>169</sup> It further provides for the harmonisation of national legislation governing the sustainable use of wildlife. This would be in keeping with the Addis Ababa Principles. The harmonisation relates to measures to protect wildlife and governs the taking of wildlife, measures governing the trade of wildlife and wildlife products, powers granted to law enforcement personnel, the facilitation of community management, and economic and social incentives for the sustainable use of wildlife.<sup>170</sup> Furthermore, the WSTCU is meant to coordinate initiatives towards legal harmonisation, but if this unit is non-functional then no legal initiatives regarding sustainable use of wildlife are being coordinated.<sup>171</sup> It serves no purpose to have these laws if nothing comes of the laws and no institution is facilitating conservation or sustainable use.

The establishment of wildlife management and conservation programmes is prescribed in Article 7. This would be in keeping with Article 6 of the CBD. Parties must furthermore assess and control activities that affect the sustainable use of wildlife to minimise its negative impacts.<sup>172</sup> This article lists the following as measures that parties must take to ensure the sustainable use of wildlife; the protection of habitats and wildlife resources, the prevention of over-exploitation leading to extinction, restrictions on the taking of wildlife, and restrictions on the trade of wildlife resources and products.<sup>173</sup> The parties may enter into programmes and agreements to promote cooperative management of shared resources and habitats that cross borders. Economic and social incentives for the sustainable use of wildlife must be promoted by parties.<sup>174</sup> Education, law enforcement, capacity building and research mechanisms and programmes must be developed with regard to conservation and sustainable use. Rural community

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169 Article 6(1) of the *Protocol on Wildlife Conservation and Law Enforcement*.

170 Article 6(2) of the *Protocol on Wildlife Conservation and Law Enforcement*.

171 Article 6(3) of the *Protocol on Wildlife Conservation and Law Enforcement*.

172 Article 7(2) of the *Protocol on Wildlife Conservation and Law Enforcement*.

173 Article 7(3) of the *Protocol on Wildlife Conservation and Law Enforcement*.

174 Article 7(6) of the *Protocol on Wildlife Conservation and Law Enforcement*.

involvement and management is promoted.<sup>175</sup> The parties must promote the development of transfrontier conservation and management programmes.<sup>176</sup>

Article 8 establishes a regional database on the management status of wildlife in the SADC for the purposes of information sharing. Again, the WSTCU is given duties, and whether any of these database duties have been fulfilled is uncertain.<sup>177</sup> If they have not, the monitoring of the wildlife and biodiversity will be non-existent in terms of surveys, figures and standards.

Article 9 ensures effective wildlife law enforcement through directing the parties to take measures to enforce the law. The parties must allocate appropriate financial and human resources required for enforcing the law governing the sustainable use of wildlife.<sup>178</sup> Article 9 provides for capacity building in the form of the parties cooperating to bolster capacity. The parties are encouraged to incorporate community-based natural resource management and to take cognisance of indigenous knowledge in arriving at managerial decisions. Furthermore, areas that need training programmes should be identified.

#### **4.4 The SADC Protocol on Fisheries**

It has been demonstrated that fisheries are very important as they assist with food security and poverty alleviation. Fish are many people's daily source of protein. The fisheries have great socio-economic value. The SADC's beaches and fishing also contribute to tourism and economic growth. Therefore protecting the fisheries is essential. The purpose of the 2001 *Protocol on Fisheries* is to provide for integrated and cooperative action between the parties to the protocol in order to optimise the

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175 Article 7(8) of the *Protocol on Wildlife Conservation and Law Enforcement*.

176 Article 7(9) of the *Protocol on Wildlife Conservation and Law Enforcement*.

177 Article 8(2) of the *Protocol on Wildlife Conservation and Law Enforcement*.

178 Article 9(2) of the *Protocol on Wildlife Conservation and Law Enforcement*.

sustainable use of living aquatic resources in the SADC.<sup>179</sup> The objectives of the protocol are as follows: to promote and enhance food security and human health, to safeguard the livelihood of fishing communities, to generate economic opportunities for nationals in the region, to ensure that future generations benefit from these renewable resources, and to alleviate poverty with the ultimate objective of its eradication.<sup>180</sup> The protocol has application to living aquatic resources and ecosystems within a party's jurisdiction and which range outside jurisdictional areas but the resources may be considered to be of interest to a party, to fishing by nationals and activities related thereto, and to international activities that promote the objectives of the protocol.<sup>181</sup>

The definition section does not define biodiversity or sustainable use. There is also no mention of biodiversity and its importance in the preamble. This can be viewed as a negative aspect, as aquatic ecosystems form an essential part of biodiversity.<sup>182</sup> This gap may cause further fragmentation of legislation as explained under the Wildlife Protocol above. The guiding principles state that the primary source of its implementation is to be national, but that the parties must cooperate to reach its objectives.<sup>183</sup> It directs that the parties must take measures to regulate the use of their aquatic resources, to protect their resources and to guard against over exploitation, while at the same time trying to enable the resources to be used sustainably.<sup>184</sup> Thus, the sustainable use of aquatic life and ecosystems is one of the guiding principles of this Protocol.

Article 5 sets out the national responsibilities of the parties. It first provides for the harmonisation of the relevant laws, policies and programmes. It prescribes that parties must adopt measures that ensure the responsible use of living aquatic resources. It provides for the authorisation of fishing vessels and the use of flags for regulated

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179 Ruppel 2012 *Southern African Development Community Law Journal* 253.

180 Article 3 of the *Protocol on Fisheries*.

181 Article 2 of the *Protocol on Fisheries*.

182 Lubbe *Yearbook of international Environmental Law* 142.

183 Article 4(2) of the *Protocol on Fisheries*.

184 Article 4(3) of the *Protocol on Fisheries*.

fishing, and provides that the parties must use the best scientific evidence available, and through proper conservation avoid endangering aquatic life by over exploitation.<sup>185</sup> Therefore this article incorporates the demand for the use of aquatic resources to be sustainable use into the parties' national responsibilities, to a certain extent. There could have been a more comprehensive use of words here to incorporate the term "sustainable use" so that the protocol would be more in line with international standards and the meaning of an established term. This could also have been achieved if the definitions of sustainable use and biodiversity had been incorporated in the definitions section of this Protocol. This section provides only for the responsible use of living aquatic life and over exploitation. It does not make provision for future generations.

Article 7 contains provisions regarding the management of shared resources. It aims at dispute resolution and cooperation between the parties. They may enter into agreements and establish instruments to facilitate management and cooperation. The harmonisation of legislation is covered in Article 8, again with particular reference to shared resources. The state parties must cooperate in matters relating to extradition, must establish region-wide penalties for illegal fishing, and must establish a registration mechanism for international fishing vessels. Article 9 deals with the parties' responsibility for law enforcement. It provides for surveillance cooperation, the designation of competent persons as fisheries enforcement officers, and the harmonisation of technical specifications and emerging technologies for vessels.<sup>186</sup>

Article 11 refers to article 6 and states with regard to the fishing of the high seas that parties undertake to recognise that the nationals of party members have the right to engage in fishing on the high seas. The parties are required to work towards the effective management of the high seas living aquatic resources, to collaborate in the

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185 Article 5(1) – (5) of the *Protocol on Fisheries*.

186 Article 9(1) of the *Protocol on Fisheries*.

establishment of common positions and policies, to engage in effective management and support international organisations that conserve the aquatic resources of the high seas. This article is in conformance with principle 8 of the Addis Ababa Principles, as multinational cooperation is definitely required for the management of maritime resources, as the seas themselves are shared. This article may contribute towards the sustainable use of aquatic biodiversity.

Ruppel<sup>187</sup> contends that Article 12 has specific importance for environmental protection as it seeks to strike a balance between the needs of industrial fishing, artisanal fishers, subsistence fishers, recreational fishers and aquaculture practitioners. A balance must be reached between political, economic and environmental interests so as to provide for sustainability. This article aims at some sort of sustainable use as it balances environmental needs with socio-economic needs. It may contribute to the sustainable use of biodiversity in the form of fisheries, even though it is specifically stated that it aims to manage and control commercial fishing.

The promotion of aquaculture<sup>188</sup> is set out in Article 13. Aquaculture is recognised as a distinct enterprise that has the potential to make valuable economic contributions to the SADC region. This article aims to promote aquaculture for its economic and social benefits. The article prescribes that the parties must establish standard guidelines and regulations for environmental impact assessments.<sup>189</sup> It further prescribes that the parties are forbidden from introducing exotic species or genetically modified species to shared aquatic systems.<sup>190</sup> Monitoring and information exchange on diseases prescribed and the spreading of disease is proscribed.<sup>191</sup> Therefore the promotion of

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187 Ruppel 2012 *Southern African Development Community Law Journal* 253.

188 Aquaculture is defined as “all activities aimed at producing in restricted areas, processing and marketing aquatic plants and animals from fresh, brackish or salt waters.” Article 1 of the *Protocol on Fisheries*.

189 Article 13(8) of the *Protocol on Fisheries*.

190 Article 13(7) of the *Protocol on Fisheries*.

191 Article 13(9) of the *Protocol on Fisheries*.

aquaculture and the prescriptions explained herein may contribute to the sensible use and conservation of aquatic resources.

Article 14 provides for the protection of the aquatic environment. The parties must conserve aquatic ecosystems including their biodiversity and unique habitats, which contribute to the livelihood and aesthetic values of the people in the SADC region.<sup>192</sup> The parties may not cause excessive transboundary harm and must address the causes of environmental degradation. They must take action to protect endangered living aquatic species and their habitats.<sup>193</sup> Article 14 further provides for integrated coastal management and the establishment of inland and marine PAs, especially for critical habitats and endangered species, as well as migratory species in transboundary areas.<sup>194</sup> The parties must adopt legislative and administrative measures to prevent the pollution of waters.<sup>195</sup> They must take account of environmental impacts and the migration of species and provide suitable fish passages and construct dams and barrages where necessary.<sup>196</sup> Sustainable use should be a salient point under this article, as sustainable use is a means of conservation.

Article 15 makes use of the term sustainable use. This article strives to promote the development of human resources. The parties must foster broad awareness of the sustainable and responsible use of aquatic resources with all stakeholders.<sup>197</sup> They must implement policies to enhance the capacities of nationals in the responsible use of living aquatic resources. There must be proper certification of seamen, marine engineers, masters of vessels and other sea-going professionals, which certification

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192 Article 14(1) of the *Protocol on Fisheries*.

193 Article 14(4) of the *Protocol on Fisheries*.

194 Article 14(7) of the *Protocol on Fisheries*.

195 Article 14(8) of the *Protocol on Fisheries*.

196 Article 14(8) of the *Protocol on Fisheries*.

197 Article 15(1) of the *Protocol on Fisheries*.

must be in line with international standards.<sup>198</sup> This article is important to the conservation of aquatic species and biodiversity as these are the people and professionals who work with aquatic life every day and their training can make a difference. It is encouraging to note that awareness of the need for the use of living aquatic resources to be sustainable is promoted and prescribed.

Article 17 pertains to science and technology. The parties are required to establish joint programmes and projects regarding shared resources and scientific problems. They must work together and towards applying the best scientific advice as a basis for decisions on the sustainable use of living aquatic resources. This article recognises that scientific knowledge is necessary in the making of decisions regarding sustainable use, but it is strange that the term “sustainable use” does not feature as much as it could throughout this protocol.

#### **4.5 The SADC Revised Protocol on Shared Water Courses**

The SADC Regional Biodiversity Strategy recognises water as one of the major building blocks in maintaining ecosystem services, and it supports biodiversity.<sup>199</sup> Lubbe<sup>200</sup> states that water is the host to biodiversity within the SADC, and that biodiversity cannot exist without water. Water is also necessary for development and agriculture, and people cannot survive without it. It is perhaps the most important of all the natural resources on earth. Most watercourses are shared resources that carve through countries and cross many borders. Therefore, if one SADC member degrades a watercourse it may potentially be disastrous for many other SADC members. The SADC is a dry region and water is a scarce resource. Cooperation is essential to conserve biodiversity and maintain peace and livelihoods in the SADC region. The protocol does not specifically recognise that water is essential to biodiversity, and it seems that socio-

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198 Article 15(4) of the *Protocol on Fisheries*.

199 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> vii.

200 Lubbe *Yearbook of international Environmental Law* 140.

economic factors are considered without environmental factors. The definition section of the protocol does not provide a definition for “sustainable use” *per se*, but does include definitions of “agricultural use”, “domestic use”, “emergency use”, “environmental use”<sup>201</sup>, “navigational use” and “industrial use”.<sup>202</sup> Of these, the environmental use is of most importance, but as the industrial and other uses have the ability to potentially pollute the water, thus destroying biodiversity, all of the uses are relevant to biodiversity conservation.

The 2000 *Revised Protocol on Shared Water Courses* replaced the previous 1995 water course protocol.<sup>203</sup> The primary objective of the revision is set out in the preamble, which specifically states that members are desirous of close co-operation pertaining to the sustainable use of resources within the watercourses.<sup>204</sup> It is therefore evident that this protocol supports the sustainable transfrontier conservation of water resources.

Article 2 expands on how the parties should achieve the main objectives of the protocol, which include establishing shared watercourse agreements and institutions, the harmonisation of legislation, promoting research and technology, promoting integrated and coordinated environmental development and the management of shared watercourses, and most importantly, promoting the advancement of the sustainable, equitable and reasonable utilisation of the shared watercourses.

The general principles found in Article 3 provide a guiding framework that should direct decision making and actions to reach the objectives of the protocol. The general principles make provision for sovereignty, respect for existing international laws,

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201 An environmental use is defines as “the use of water for the preservation and maintenance of ecosystems. Article 1 of the *Revised Protocol on Shared Water Courses*.

202 Article 1 of the *Revised Protocol on Shared Water Courses*.

203 Ruppel 2012 *Southern African Development Community Law Journal* 256.

204 Preamble of the *Revised Protocol on Shared Water Courses*.

sustainable development, cooperation, and the exchange of information, and equitable and reasonable utilisation for the benefit of the current and future generations. The latter principle definitely deals with sustainable use within each party's territory.<sup>205</sup> There is a right of use coupled with a duty to protect the watercourses. The parties must take a number of considerations into account to make sure that use is equitable and reasonable.<sup>206</sup> They must prevent significant harm to the watercourses of other states. This may contribute to the protection of biodiversity.<sup>207</sup> Principle 11 of the Addis Ababa Principles is reflected in the content of this protocol.

Article 4 makes specific provisions. Of importance is Article 4(2), which deals with environmental protection and preservation. The parties must individually and where appropriate together protect and preserve the ecosystems of shared watercourses.<sup>208</sup> This article is in line with principle 8 of the Addis Ababa Principles. It does not prescribe how the parties should do this. Perhaps this sub-article could be expanded or an annexure could be provided that calls for minimum standards and requirements for the protection and preservation of the watercourses that parties must comply with. The article further provides for the prevention and reduction and control of pollution. This is to be attained by means of the setting of water quality objectives, agreement on best practices, and the listing of substances that may not be introduced into watercourses.<sup>209</sup> The introduction of alien or new species that may have detrimental effects on the biodiversity in the watercourses of other states is prohibited.<sup>210</sup> It is submitted that the introduction of such species should also be prohibited in a party's own watercourses, on an individual basis, for the protection of biodiversity and ecosystem services. This article is in conformance with principles 4, 5, 6, 10 and 11 of the Addis Ababa Principles. Lastly, this sub-article aspires to protect and preserve the aquatic environment through

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205 Article 3(7) of the *Revised Protocol on Shared Water Courses*.

206 Article 3(8)(a) (i) – (vii) of the *Revised Protocol on Shared Water Courses*.

207 Article 3(10) of the *Revised Protocol on Shared Water Courses*.

208 Article 4(2)(a) of the *Revised Protocol on Shared Water Courses*.

209 Article 4(2)(b) of the *Revised Protocol on Shared Water Courses*.

210 Article 4(2)(c) of the *Revised Protocol on Shared Water Courses*.

individual cooperation with other states by taking the necessary measures, which include generally accepted international rules and standards.<sup>211</sup>

Article 5 provides for the establishment of Shared Watercourse Institutions (SWIs) for shared governance and management and environmental protection. The SWIs may assist with the implementation of the protocol as well as in harmonising legal regimes, conducting research, exchanging information, and stimulating public awareness and participation.<sup>212</sup> This article complies with and makes provision for principle 14 of the Addis Ababa Principles. It is noteworthy, however, that the SADC Guidelines for Strengthening River Basin Organisations: Environmental Management 2010 complements the environmental governance of the SWIs.<sup>213</sup> The guidelines do this through the provision of guiding principles for environmental governance. This is innovative due to the fact that the guidelines are incorporated into the sub-regional governance framework.<sup>214</sup>

#### **4.6 The SADC Regional Biodiversity Strategy**

As stated above, there is no single piece of dedicated legislation aimed at biodiversity conservation in the SADC sub-region. Although the 2006 SADC *Regional Biodiversity Strategy* is soft law and not legally binding, it is of importance due to the lack of dedicated biodiversity conservation law.<sup>215</sup> The purpose of the strategy is to provide a regional framework for co-operation on biodiversity issues and to contribute towards the goals and economic development of the RISDP, NEPAD and the MDGs.<sup>216</sup> The strategy aspires to provide guidelines to implement the provisions of the CBD, provide a

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211 Article 4(2)(d) of the *Revised Protocol on Shared Water Courses*.

212 Lubbe "A legal appraisal" 222.

213 Lubbe "A legal appraisal" 222.

214 Lubbe "A legal appraisal" 222.

215 Lubbe "A legal appraisal" 226.

216 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 1.

framework to unify the SADC on consensus for participation at the CBD COPs, to mobilise development partnerships in the international arena, and to foster co-operation under international instruments that are relevant to biodiversity.<sup>217</sup>

The strategy acknowledges the richness of the SADC's biodiversity. Simultaneously it recognises that there is a biodiversity crisis within the SADC. It that biodiversity is in decline.<sup>218</sup> The strategy paints quite a negative image of regional biodiversity conservation.<sup>219</sup> The threats to the region's biodiversity are identified and discussed.<sup>220</sup> Thereafter the strategy sets out its responses to the biodiversity threats. From the outset it should be noted that the strategy is out of date. It should have been reviewed every five years, but this has not been done.<sup>221</sup> This is unfortunate as the threats identified may very well have changed, thus requiring the scheduled revision. Annexures II and III to the strategy outline the biodiversity situation within the SADC and the constraints to biodiversity in each SADC member state respectively. These facts and constraints need to be revised so as to properly account for the present situation and to enable the biodiversity action plan to address present issues and constraints.

It must be noted that the strategy was formulated against the background of the SADC region's constraints and challenges relating to biodiversity conservation.<sup>222</sup> These challenges and constraints<sup>223</sup> must be kept in mind when interpreting the strategy. They constitute a further barrier to implementing the sustainable use of biodiversity in the

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217 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 1.

218 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 38.

219 Lubbe "A legal appraisal" 228.

220 The threats listed include population growth and poverty, agricultural expansion, continued reliance on wood fuel, land degradation, and the introduction of genetically modified organisms. SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 51.

221 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> viii.

222 Lubbe "A legal appraisal" 227. SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 4.

223 The challenges and constraints are repeated here for convenience: increased pressures on biodiversity due to the limited availability of alternative livelihoods, inadequate biodiversity monitoring and inventory making, inadequate incentives for biodiversity conservation and sustainable use, low levels of awareness and appreciation of biological resources, limited funding, inadequate research, limited attention to genetically modified organisms and invasive alien species, and weak institutional and legal frameworks to carry out biodiversity conservation initiatives. These are constraints on biodiversity conservation. SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 5.

SADC region. The strategy has three main areas for priority. These three strategic areas are firstly to enhance the region's economic and business base; secondly, to ensure that economic opportunities emerging from "biotrade" do not lead to unsustainable practices; and thirdly, to develop and implement biodiversity awareness and capacity building.<sup>224</sup>

The first strategic area, which has to do with enhancing the business base, echoes principles 3 and 10 of the Addis Ababa principles by suggesting that biodiversity in the region should be valued, thus rectifying the practice of undervaluing biodiversity in the region. This would contribute to the sustainable use of biodiversity. The second strategic area<sup>225</sup> is of the most importance, as it specifically deals with the sustainable use of biodiversity. In order to achieve such sustainable use the strategy states that the following must be implemented;

- i. Regular resource monitoring and inventories must be drawn up;
- ii. Broadening the resources base;
- iii. Establishing effective institutional and legal frameworks;
- iv. Promoting Access to Benefit Sharing Principles;
- v. Developing regional biodiversity policy and a biodiversity protocol;
- vi. Promotion of partnerships between governments, the private sector and local communities;
- vii. Encouragement of mitigatory measures in environmental impact reporting; and
- viii. Mainstreaming of biodiversity.

The second strategic area therefore supports many of the guidelines and principles of the Addis Ababa Principles. It is submitted that it supports principles 1, 2, 3, 4, 5, 11 and 12. It is disappointing that the strategy does not specifically mention that biodiversity should be used in such a way so as to provide for present and future needs. The third strategic area is important to the promotion of the sustainable use of biodiversity in the SADC. It supports principles 4, 13 and 14 of the Addis Ababa Principles. This is essential if the challenges and constraints experienced in the region are to be effectively addressed. The strategy should have been revised to specifically include the Addis Ababa principles when the principles were decided upon in 2010.

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224 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 19.

225 SADC 2006 *Regional Biodiversity Strategy* <http://www.sadc.int> 20.

The strategy recognises that the SADC legal framework is weak in terms of protecting biodiversity. The strategy confirms that regional biodiversity policy and protocol are required.

#### **4.7 The SADC Community Regional Biodiversity Action Plan**

The SADC Community Regional Biodiversity Action Plan (SADC BAP), which is dated April 2013, has its main purpose in the operationalisation of the SADC Regional Biodiversity Strategy, which is dated 2006. Due to the strategy's being so out-dated, the value of this action plan can be questioned. The plan has biodiversity goals set for achievement in 2025. It has six strategic areas within which it aims to facilitate the sustainable use of biodiversity. The areas are biodiversity governance, biodiversity-based community livelihoods, biodiversity for economic development, biodiversity management systems, biodiversity and climate change, and biodiversity and energy.<sup>226</sup> What is apparent is that these strategic areas do not correspond with the second strategic area of the SADC Regional Biodiversity Strategy, and areas like climate change and energy have been added. These are important, but the implementation of the sustainable use of biodiversity seems to be more in line with Addis Ababa guidelines in terms of the Strategy, where the BAP is not. The SADC BAP makes no reference to the Addis Ababa principles.

The SADC BAP also recognises that there is no biodiversity-specific protocol. This shortcoming was identified in 2006 and is again listed as a shortcoming in 2013. No action has been taken in this regard. The SADC BAP calls for international co-operation but states that ultimate success is dependent on implementation through national governments within SADC. The plan recognises that education and awareness is needed, which statement echoes that in the Addis Ababa Principles. It sets up a

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226 SADC 2013. SADC Community Regional Biodiversity Action Plan 8.

monitoring and reporting framework which will be put in place, which is to include internal and external monitoring. No further specific directions as to monitoring are provided.

The SADC BAP aims to improve the legal governance of biodiversity, but it does not state how this will be achieved. The plan recognises the gaps in member states' legislation but not in terms of SADC legislation. The plan merely states that it will enhance effective biodiversity legislation. No further guidance is provided to member states or to the SADC.<sup>227</sup> It aims to promote the sustainable use of biodiversity but does not state how this will be done with proper clarity. The plan furthermore states that the secretariat will oversee the implementation of the BAP. It lists many committees and simply states that these committees will facilitate the corresponding strategic areas, but again no detail is provided.<sup>228</sup> Lastly, the SADC BAP deals with financial mechanisms to implement the plan, which is an important matter, but it does not state how strategic goals will be achieved.

It would appear that the SADC BAP is perhaps a few years late and lacks in real substance relating to legal improvements and how exactly sustainable use will be achieved. The Addis Ababa principles should be specifically incorporated with the SADC BAP along with specific requirements as prescribed by the CBD. It seems to reiterate the desire of the SADC to address the conservation of biodiversity without providing an adequate road map as to how this will be achieved, as a plan should.

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227 SADC 2013. SADC Community Regional Biodiversity Action Plan 16.

228 SADC 2013. SADC Community Regional Biodiversity Action Plan 22.

#### 4.8 Synopsis

The *Protocol on Forestry* mentions sustainable utilisation and some provisions indirectly incorporate it through the definition of sustainable forest management, but it does not specifically incorporate sustainable use in such a way as to permit one to conclude that the sustainable use of forest resources is a priority; nor is sustainable use deemed to be a fundamental means of forest biodiversity conservation within the SADC. It is a pity that the protocol supports sustainable use only to a limited extent, and can be thought to do so only if one interprets the definition of sustainable management as incorporating it. Sustainable utilisation is an objective of the protocol, but not much is said as to how to achieve this. Despite there being no specific reference to sustainable use other than in the objectives, the protocol may still contribute to the conservation of forest biodiversity. Another negative factor is that the protocol does not recognise the biodiversity that is found in forests. The elements of the sustainable use of biodiversity that the protocol does recognise include the facts that people and the forests are connected, and that people will use the forest and need it to survive. It purposes to protect the forests for future generations, which is an important element of sustainable use. It recognises that local communities have a role to play in managing and conserving the forests, which echoes a guiding principle in the Addis Ababa Principles. It also recognises that transboundary conservation is necessary and that forests transcend borders, a recognition which is essential to biodiversity conservation.

The *Protocol on Wildlife Conservation and Law Enforcement* definitely promotes the sustainable use of wildlife and aims to harmonise the legislation governing the use of wildlife.<sup>229</sup> One of the main principles of the protocol is sustainable use. It provides for programmes for the sustainable use of wildlife, which is prescribed in the CBD as a general measure to attain sustainable use. It is productive that the protocol instructs the parties to promote economic and social incentives for the sustainable use of wildlife;

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229 Ruppel 2012 *Southern African Development Community Law Journal* 260.

however, it would be better if the wildlife had a higher value and the costs of conservation and management could be internalised. Promotion is good but not good enough. Education and awareness and capacity building are elements that may contribute to the conservation of biodiversity, as prescribed by the Addis Ababa Principles. The undervaluation of wildlife is a major factor that must change. Furthermore, local communities are recognised as per principle 12 of the Addis Ababa Principles. Monitoring is provided for to a certain extent, as per adaptive management in principle 4, but as the WSTCU is non-functional, this provision is redundant. The protocol also promotes the conservation of shared wildlife resources through transfrontier conservation.<sup>230</sup> However, the protocol does not provide a normative framework for decision makers on how to govern TFCAs.<sup>231</sup> This is unfortunate because, as pointed out above, TFCAs could really contribute to facilitating the sustainable use of biodiverse resources, especially if more clarity is given on governance in the TFCAs. Therefore the wording of the protocol seems to emulate that of classical PAs rather than that of emerging models.<sup>232</sup>

In conclusion and on the topic of the *SADC Protocol on Fisheries*, one notes from the outset in the statement of the objectives of this Protocol that sustainable use is featured for the purposes of conserving the fisheries for future generations. The sustainable use of aquatic life and ecosystems is one of the guiding principles of the protocol. Measures for ensuring the sustainable use of aquatic life must be adopted by the parties to the protocol to make sure that there are adequate safeguards to prevent over-exploitation and thus to prevent the decline or extinction of species. This Protocol recognises that people are going to “use” the seas, as it specifically lists all the uses of the oceans, from the artisanal to the industrial. It tries to regulate all the listed uses, thereby recognising to some degree it people’s strong connection with the sea and need to exploit aquatic resources. The protocol furthermore promotes aquaculture for social and economic

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230 Ruppel 2012 *Southern African Development Community Law Journal* 260.

231 Lubbe “A legal appraisal” 224.

232 Lubbe “A legal appraisal” 224.

purposes, which amounts to promoting the sustainable use of fish. The protocol also calls for the establishment of maritime PAs.

The *SADC Revised Protocol on Shared Water Courses* is very important to biodiversity conservation, as is explained above, notwithstanding the fact that it is disappointing that this protocol does not specifically refer to such conservation. The main objectives and the guiding principles foster equitable and reasonable utilisation of shared watercourses for current and future generations. This is in consonance with the definition of sustainable use, and may assist in conserving biodiversity. What is also disappointing is that no definition is provided for equitable and reasonable use in this Protocol. Do the parties themselves therefore decide what would amount to equitable and reasonable use? It appears that most of the Addis Ababa Principles relating to the achievement of the sustainable use of biodiversity have been provided for. It is just a pity that there is no direct reference to biodiversity in this Protocol. Nevertheless, it does provide for some of the elements of a biodiversity conservation framework and with its promotion of shared management and watercourse conservation it could be at the centre of biodiversity conservation in SADC – especially if one considers the scarcity of water in the sub-region.<sup>233</sup>

The framing of soft law such as biodiversity strategies and action plans is a requirement as per the CBD, and these policy documents must provide for the sustainable use of biodiversity. In terms of the soft law, the importance of the *SADC Regional Biodiversity Strategy* has been illustrated, due to the lack of dedicated biodiversity legislation. The strategy links up with goals in terms of the RISDP, NEPAD and the MDGs, a fact which is important for integration and harmonisation purposes. The fact that the strategy has not been revised timeously is detrimental to biodiversity conservation, as environmental impacts are constantly changing and will therefore not be the same as they were in

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233 Lubbe “A legal appraisal” 222.

2006. In fact, most global studies indicate that biodiversity loss is sharply increasing, as discussed above. The second and third strategic areas specifically focus on sustainable use with the implementation thereof meeting many of the Addis Ababa Principles. However, there is no specific mention of the Principles. Sustainable use can be deemed to be a priority in terms of the strategy, but the SADC BAP should specifically set a road map for implementation, with specific details following on from the strategy - or a revised strategy would have been ever better. The Action seems to be a bald and sketchy plan with no real details in it as to how the laws will be strengthened, yet it seems as if all steps in the plan will tend to assist with facilitating the sustainable use of biodiversity.

## **5 Conclusions and recommendations**

The purpose of this research was to examine to what extent the sustainable use of biodiversity has been provided for in the SADC legal and policy framework. In this final section of the dissertation, the main findings from the literature study are outlined with conclusions and recommendations provided to address the research purpose.

The literature review on biodiversity in Chapter Two established that the earth as a whole is undergoing a mass extinction of species. Biodiversity must be conserved for future generations around the world. SADC members have a duty to take action and help to preserve the world's biodiversity. All SADC members are party to the CBD, which is the international treaty on biodiversity. SADC members must therefore comply with the regulations in this treaty. Sustainable use as a primary objective of the CBD must be incorporated into SADC legislation and into policies and action plans. On the basis of the discussion in Chapter Four it is submitted that the SADC is partially compliant with the CBD requirements for the following reasons. Firstly, the SADC does not have a single biodiversity protocol, but there are protocols that could be seen to cater for biodiversity in specific areas of interest, such as water, wildlife, forests and

fisheries. Secondly, the SADC does not appear to perform sufficient up-to-date monitoring or to compile biodiversity inventories. This conclusion is drawn as no such data is available on the SADC website. Chapter Four further indicates that the SADC has a biodiversity strategy and action plan, but that these do not flow from biodiversity-specific legislation which would back them up, and the strategy is out-dated and has not been reviewed since 2006. The CBD calls for threats to biodiversity to be identified and monitored. If the strategy is not current this requirement has not been complied with. The sustainable use of biodiversity therefore cannot be monitored and regulated if there is no baseline biodiversity monitoring to start with. This is due to the fact that measures, regulations and incentives cannot be implemented against what is not known or documented, if nothing is known or documented. It is apparent that the sustainable use of biodiversity is specifically provided for in the international law to which SADC members must comply. Furthermore it would appear that the SADC should re-consider its compliance and implementation with the sustainable use requirements prescribed in the CBD, as has been set out in Chapter Three above. The SADC must demonstrate that the conservation of biodiversity through the sustainable use of biodiversity is a SADC priority.

A historical background of the SADC was provided in Chapter Two under paragraph 2.2. This was presented as it has a direct impact on how the SADC member states view and guard natural resources. Issues like poverty alleviation and economic development are of the greatest concern to the SADC as all member states are developing nations. This is evident as references to programmes and plans such as the MDGs, the RISP and NEPAD feature prominently throughout the documents reviewed in this dissertation. Environmental issues are clearly not high on the agenda, and therefore require urgent attention, because without biodiversity there will be no socio-economic development. It is advised that awareness educational campaigns regarding the importance of biodiversity and more specifically the sustainable use of biodiversity must be carried out in the SADC sub-region. It was further pointed out that by incorporating the sustainable use of biodiversity into legal and policy documents a contribution would be made

towards the SADC'S poverty alleviation and socio-economic goals. It was found that the SADC faces certain difficulties pertaining to biodiversity conservation. One of the main such challenges is fervent support for the notion of permanent sovereignty. This is a terrible burden on Africa, as it prevents the continent from converting its natural resource wealth into economic growth. Only once permanent sovereignty can no longer be used as an excuse for not complying with international environmental requirements will the SADC be able to progress and find itself on the path to facilitating progressive biodiversity conservation. Ultimately permanent sovereignty does not recognise that biodiversity is part of an ecological network that does not adhere to man-made territorial lines. Sustainable use needs to be implemented through more modern models, such as PAs that may span across borders.

Chapter Two also considered the SADC's richness in biodiversity. The region is very rich in biodiversity due its possessing many biodiversity hotspots. The strict qualifications for describing areas as hotspots were described while the point was made that out of the thirty-five hotspots in the entire world the SADC is home to five. This makes the SADC's duty to conserve biodiversity even greater. The hotspots in the region were discussed to illustrate just how rich the SADC is in biodiversity in comparison with other regions. In point of fact, the SADC is economically dependent on biodiversity. Many people depend on biodiversity for daily survival. The people of the SADC use the biodiverse resources available to them on a daily basis. Many member states also gain in terms of GDP from the existence of such biodiversity. Addressing the sustainable use of that biodiversity is therefore imperative. Even though there is "richness" in biodiversity within the SADC, much of it is being lost. The pressures on biodiversity were identified, and the point was made that the pressure is not managed correctly as there is inadequate environmental governance. Once again issues like weak legal frameworks along with inadequate biodiversity monitoring and a lack of attention being paid to the compilation of inventories came to the fore. These issues point to a re-occurring problem that has been identified in this research.

The third chapter of this dissertation focused on the sustainable use of biodiversity. The main focus of this research was to determine to what extent the sustainable use of biodiversity is provided for in the SADC legal and policy framework. The origin of the notion of sustainable use was linked back to the 1980s, and really gained momentum in 1990. The human need to use biodiverse resources was identified, and therefore the need to regulate the exploitation for it to be sustainable was identified. During this time proper monitoring mechanisms were already identified as an essential tool for the sustainable use of biodiversity. Once again the aspect of proper monitoring is highlighted in this research. The CBD specifically provides for the sustainable use of biodiversity, which allows for the use of biodiversity in such a manner as to prevent the long term loss and decline of biodiversity, while meeting the needs of the present and future generations. It is submitted that this definition should be used in the SADC legal and policy framework, should a biodiversity protocol ever be developed. This definition was used in the research to examine the protocols that relate to biodiversity. It is clear that many of the protocols do not contain such a definition. This omission could be viewed as non-compliance with the CBD, as the SADC legal framework has not even incorporated a definition for sustainable use into the legal framework, thus not giving effect to the CBD. The general acceptance of the 2004 Addis Ababa principles and guidelines for the sustainable use of biodiversity was also identified as an important step in the history of the sustainable use of biodiversity. These principles and guidelines were explained and used throughout the research to determine to what extent the sustainable use of biodiversity is provided for in the SADC legal framework. Articles 6 and 10 of the CBD were recognised as specifically dealing with sustainable use. These two articles were also used throughout the research to examine the SADC legal framework.

A discussion on PAs was included in order to demonstrate that they are successfully evolving to incorporate sustainable use into the functioning, management and approach of PAs. This was demonstrated under paragraph 3.5 above. It was pointed out that the modern emerging models such as TFCAs identify the connectedness of man and

biodiversity. The vision that gave rise to them includes seeing a clear ecological, economic and social relationship between man and biodiversity. Because such PAs provide for the sustainable use of biodiversity, it is submitted that along with a dedicated biodiversity protocol, the SADC requires legislation and policies that provide for the establishment of PAs based on the modern and emerging models. Guidelines on PAs should be provided for in a biodiversity protocol, along with relevant strategies and actions plans. Such PAs would also contribute to the achievement of the SADC's poverty alleviation and economic goals.

The fourth chapter of this dissertation examined the SADC protocols relating to biodiversity as well as the SADC Regional Biodiversity Strategy and the SADC BAP. The protocols and policy documents were examined to determine to what extent they provide for the sustainable use of biodiversity. The CBD and the Addis Ababa principles and guidelines were used in the examination as a reference point when the protocols and policy documents were examined. The main conclusions and recommendations arising from this analysis are highlighted hereunder.

It is firstly submitted that a protocol on biodiversity should be drafted and signed by all SADC member states as soon as possible. While the lack of such a protocol was identified as a weakness within the SADC legal framework as early as 2006 in the Biodiversity Strategy, no action has been taken in this regard. This lacuna was again identified in the SADC BAP in 2013, and yet to date no such protocol has been developed. The need for developing a SADC biodiversity protocol is clearly evident. Such a protocol should use the CBD as a starting point and could be tailored to meet the needs of the SADC member states. It should specifically provide for the establishment of PAs and the sustainable use of biodiversity, and should contain all the elements recommended in the Addis Ababa principles and guidelines on the sustainable use of biodiversity. The protocol should have annexures that provide guidance on biodiversity inventories, assessments, notifications to the SADC authorities

and the proper monitoring of the sustainable use of biodiversity. The protocol should prescribe minimum norms and standards that should be adhered to, to ensure proper monitoring and management of the sustainable use of biodiversity. A general finding is that the definitions of “sustainable use” and “biodiversity” and therefore “sustainable use of biodiversity” are lacking; therefore the very important link to biodiversity is missing throughout the legal framework.

If no biodiversity protocol is going to be drafted and take effect in the foreseeable future, the protocols that deal with biodiversity should be amended to provide for the sustainable use of biodiversity. The shortcomings and recommendations as per the protocols examined in this research are provided for below.

Chapter Four, paragraph 4.2 reviewed the *Protocol on Forestry*. This Protocol should be amended to contain a definition of sustainable use and a definition of biodiversity so as to address the biodiversity found within the forests. It was found that the protocol defines only sustainable forest management, which may be interpreted as facilitating the sustainable use of biodiversity. The protocol does not recognise the sustainable use of forest biodiversity as a means to conserve biodiversity. It has sustainable utilisation as an objective, but should be amended to provide how this should be achieved. Amending this Protocol by improving the wording and specifically mentioning the biodiversity found in forests, or the inclusion of annexures and/or regulations with specific regard to sustainable use would surely contribute to saving forest biodiversity in the SADC region, as people will otherwise continue to use the biodiverse resources that are found in the forests at an ever increasing and unsustainable rate. Considering that forests are home to a wondrous variety of creatures, it is shameful that this Protocol does not provide for the sustainable use of biodiversity to a greater extent.

The *Protocol on Wildlife Conservation and Law Enforcement* was discussed under paragraph 4.3. The sustainable use of biodiverse resources is provided for here to a greater extent, in that it is a main objective. It is recommended that the WSTCU be brought back into action and that a normative framework for decision makers on how to govern PAs and TFCAs should be provided. It was found that the wording of the protocol is out-dated and that it should be amended to make it more in line with modern and emerging approaches to PA governance. It would have been much more to the point to use the word biodiversity instead of wildlife, or to have used both the words wildlife and biodiversity. The protocol recognises that there is link between sustainable development, biodiversity and conservation but does not recognise the need for connectivity in the context of a holistic consideration of biodiversity, and thus further fragments wildlife conservation as an element of biodiversity.<sup>234</sup> Quite a few elements of sustainable use are recognised and presented, but there is much room for improvement.

The *SADC Protocol on Fisheries* was discussed under Chapter Four paragraph 4.4. This Protocol recognises that the use of the fisheries will occur and incorporates elements of sustainable use. Improvement is recommended in terms of the following; firstly, the protocol should define sustainable use and biodiversity among the definitions in Article 1. Secondly, the protocol should recognise that aquatic ecosystems play a vital part in maintaining aquatic biodiversity. The protocol should also provide a normative framework for decision makers on how to govern PAs, as it calls for the establishment of PAs. This is excellent, as PAs have long been a mechanism for biodiversity conservation, and it has been concluded that modern PAs provide for the sustainable use of biodiversity. However, this would be beneficial only if the PAs were to be of the more modern and emerging models, as explained above under Chapter Three.

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234 Lubbe "A legal appraisal" 224.

The *SADC Revised Protocol on Shared Water Courses* was reviewed in Chapter Four under paragraph 4.5. This protocol should be amended to state that watercourses are recognised for the role they play in supporting biodiversity. The preamble should recognise the importance of water *inter alia* to biodiversity and ecosystems. There should be a further amendment so as to provide for definitions of sustainable use and biodiversity, which should be specifically included in the Protocol. At the moment the protocol mentions reasonable and equitable use without defining it, which leaves the term open to interpretation and therefore open to misinterpretation to the detriment of biodiversity.

In terms of the soft law, which was addressed under paragraphs 4.6 and 4.6, which encompasses the Regional Biodiversity Strategy and the SADC BAP, there is also room for improvement and amendments. These policy documents do not have a protocol to provide these soft laws with a “backbone”. The Strategy recognises that a biodiversity protocol is required. The Strategy has to be revised and updated as soon as possible, and thereafter the SADC should ensure that all reviews are done timeously within the five year review limit. This lack of the required review demonstrates that biodiversity is not a priority within the SADC. Although many elements of the Addis Ababa principles are provided for in the strategy, it is recommended that the Strategy should overtly include and specifically provide for all of the Addis Ababa principles. One might argue that the Strategy does provide for the sustainable use of biodiversity to quite an extent, but without a protocol and without reviews and proper monitoring and reporting, the value of the Strategy is minimal. Any subsequent reviews and legislation should also provide for biodiversity hotspots, seeing that there are five within the SADC. A hotspot network should be set up under the management of the SADC. The BAP was examined and the findings were that it lacked details about how the sustainable use of biodiversity was to be achieved. Normally direction will flow from legislation to a strategy and then be fleshed out in greater detail in soft law, as the protocols cannot provide such specific details. The details, directions and guidelines for the sustainable use of biodiversity should be mapped out in detail if the SADC is to achieve the biodiversity goals it set out to achieve by 2025. The sustainable use of biodiversity is one of the primary goals of

the SADC. It would appear that the “roadmap” to achieving this has not been clearly set out in the BAP.

The SADC member countries should adopt stronger legislation that provides for the sustainable use of biodiversity. Monitoring and reporting should feature more in any new legislation and policies. There must be strict compliance regulations regarding this, as the fact that the last available data in the SADC Regional Biodiversity Strategy is dated 2006 suggests that proper monitoring and reporting is not taking place at present.

Biodiversity belongs to everyone and to no one. It has to be preserved for future generations. If the necessary action were to be taken to incorporate the sustainable use of biodiversity into the relevant SADC legal framework, this would substantially contribute to the conservation of biodiversity through regulating and providing for the sustainable use of biodiversity. This research demonstrates that the SADC legal framework is in need of an urgent paradigm shift. The current legal framework and paradigm are out-dated. The shift must be towards regulating and incorporating the sustainable use of biodiversity. In conclusion, the SADC legal framework does not provide for the sustainable use of biodiversity to the extent that it should, and the amendments and recommendations provided for in this dissertation should be implemented sooner rather than later.

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