

Assessing collaborative environmental governance: A case study of the Kogelberg Biosphere Reserve in South Africa

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Declaration

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Abstract

Under the current trajectory of declining biodiversity and environmental problems, several initiatives have emerged to promote sustainable development. One such initiative that provides the platform for reconciling the often conflicting imperatives of conservation and socio-economic development is the concept of biosphere reserves. One way the biosphere reserve concept functions is through collaboration and deliberate stakeholders engagement. Thus, this study assessed the effect of collaborative governance on environmental and socio-economic development outcomes in the Kogelberg Biosphere Reserve (KBR) in South Africa. Using a review of existing literature, an assessment framework for collaborative governance was developed, comprising of an iterative circle of system context, dynamics and outcomes. The system context entails the elements that dictate the conditions within which collaborative governance evolves, the dynamics are the factors that stimulate or influence collaboration and determine how the process turns out, and outcomes are the results and benefits that are derived from collaboration. This assessment framework was applied to the KBR case study, using quantitative and qualitative methodologies comprising interviews, and analysis of relevant publications and reports written about the KBR. In total about twenty five people from the public sectors, private institutions, businesses, Non-Governmental Organisations, academia and the community were interviewed. Using a list of pre-defined themes from the literature, a content analysis of the interview findings and documents was done, exploring the themes of institutional, environmental and socio-economic development outcomes of collaboration. In answering the research question ‘What is the effect of collaboration on environmental and socio-economic development outcomes in a biosphere reserve?’, the study first note a strong correlation between collaboration and outcomes, in the sense that where there is collaboration, there are positive outcomes, and where there is a lack of collaboration, expected results are not achieved. Secondly, the study found that where environmental conservation does not promote socio-economic development, outcomes are not sustainable. Collaboration in the KBR, has, to some extent, improved certain outcomes, particularly those relating to biodiversity conservation, ecosystem

management and awareness creation. The same, however, cannot be said about the socio-economic development outcomes, which the study found are not adequately addressed. Hence, in the light of the above findings, there is a need for the KBR to revisit its core strategic objectives, to ensure that its conservation and socio-economic development goals are integrated and fairly balanced in order to ensure sustainability.

Keywords:

Sustainable Development, Biosphere, Collaborative Governance, Kogelberg Biosphere Reserve, South Africa

Opsomming

Onder die huidige trajek van dalende biodiversiteit en omgewingsprobleme het verskeie inisiatiewe ontstaan om volhoubare ontwikkeling te bevorder. Een so 'n inisiatief wat die platform bied om die dikwels teenstrydige noodsaaklikhede van bewaring en sosio-ekonomiese ontwikkeling te versoen, is die konsep van biosfeerreservate. Een manier waarop die biosfeerreservaat konsep funksioneer, is deur samewerking en doelbewuste betrokkenheid van belanghebbendes. So het hierdie studie die effek van gesamentlike regering op omgewings- en sosio-ekonomiese ontwikkelingsuitkomst in die Kogelberg Biosfeerreservaat (KBR) in Suid-Afrika beoordeel. Met behulp van 'n oorsig van bestaande literatuur, is 'n assesseringsraamwerk ontwikkel om samewerkende regering te beoordeel, bestaande uit 'n iteratiewe sirkel van stelselkonteks, dinamika en uitkomst. Die stelselkonteks behels die elemente wat die toestand bepaal waarbinne samewerkende bestuur ontwikkel, die dinamika is die faktore wat samewerking stimuleer of beïnvloed, en bepaal hoe die proses uitdraai en uitkomst is die resultate en voordele wat uit samewerking verkry word. Hierdie assesseringsraamwerk is toegepas op die KBR, deur gebruik te maak van kwantitatiewe en kwalitatiewe metodologieë wat onderhoude insluit, en analise van relevante publikasies en verslae oor die KBR. In totaal is daar onderhoude gevoer met omtrent vyf en twintig mense uit die openbare sektore, private instellings, besighede, nie-regeringsorganisasies, akademie en die gemeenskap. Met behulp van 'n lys vooraf gedefinieerde temas uit die literatuur, is 'n inhoudsanalise van die onderhoudsbevindinge en dokumente gedoen, wat die temas van institusionele, omgewings- en sosio-ekonomiese ontwikkelingsuitkomst van samewerking ondersoek het. By die beantwoording van die navorsingsvraag 'Wat is die effek van samewerking op omgewings- en sosio-ekonomiese ontwikkelingsuitkomst in 'n biosfeerreservaat?', toon die studie eerstens 'n sterk verband tussen samewerking en uitkomst, in die sin dat waar daar samewerking bestaan, daar positiewe uitkomst is, en waar daar 'n gebrek aan samewerking is, word verwagte resultate nie behaal nie. Tweedens het die studie bevind dat waar die omgewingsbewaring nie sosio-ekonomiese ontwikkeling bevorder nie, uitkomst nie volhoubaar is nie. Samewerking in die KBR het tot 'n sekere mate, sekere

uitkomst verbeter, veral dié wat verband hou met bewaring van biodiversiteit, ekosistembestuur en bewusmaking. Dieselfde kan egter nie gesê word oor die sosio-ekonomiese ontwikkelingsuitkomst nie, wat die studie bevind nie voldoende aangespreek word nie. Daarom is daar 'n behoefte vir die KBR om, in die lig van bogenoemde bevindinge, sy kern strategiese doelwitte te heroorweeg, om te verseker dat sy bewarings- en sosio-ekonomiese ontwikkelingsdoelwitte geïntegreer en redelik gebalanseer word om volhoubaarheid te verseker.

Sleutelwoorde

Volhoubare Ontwikkeling, Biosfeer, Samewerkende Bestuur, Kogelberg Biosfeer Reservaat, Suid-Afrika

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List of Acronyms and Abbreviations

CBD	Convention on Biological Diversity
DAFF	Department of Agriculture Forestry and Fisheries
DEA	Department of Environmental Affairs
DEA&DP	Department of Environmental Affairs and Development Planning
DEAT	Department of Environmental Affairs and Tourism (former name of the Department)
DPME	Department of Planning Monitoring and Evaluation
EIA	Environmental Impact Assessment
EMF	Environmental Management Plan
EMP	Environmental Management and Implementation Plan
FAO	Food and Agriculture Organisation of the United Nations
I&AP	Interested and Affected Party
IDP	Integrated Development Plan
IMP	Integrated Management Plan
IUCN	International Union for Conservation of Nature
KBR	Kogelberg Biosphere Reserve
KBRC	Kogelberg Biosphere Reserve Company
KNR	Kogelberg Nature Reserve
MAB	Man and the Biosphere
MAP	Madrid Action Plan
NBSAP	National Biodiversity Strategy and Action Plan
MEA	Millennium Ecosystem Assessment
MEC	Member of the Executive Committee
MERO	Municipal Economic Review and Outlook
NDP	National Development Plan
NEMA	National Environmental Management Act
NEM:PAA	National Environmental Management: Protected Areas Act
NEM:BA	National Environmental Management: Biodiversity Act

NFSD	National Framework for Sustainable Development
NPC	National Planning Commission
NSSD	National Strategy for Sustainable Development and Action Plan
PLOS	Public Library of Science
PNAS	Proceedings of the National Academy of Sciences of the United States
RSA	Republic of South Africa
SANBI	South African National Biodiversity Institute
SDF	Spatial Development Framework
SDG	Sustainable Development Goal
SFP	Strategic Framework Plan
SPLUMA	Spatial Planning and Land Use Management Act
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNGA	United Nations General Assembly
UNISDR	United Nations International Strategy for Disaster Reduction
UNRISD	United Nations Research Institute for Social Development

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Chapter 1: Introduction to the study

1.1 Introduction

This chapter presents the full proposal of the research. It begins with the background and rationale about the need to assess collaborative environmental governance and followed by the problem statement. It outlines the aim and objectives of the study and highlights the research design and methodology, and ends with the chapter outlines.

1.2 Contextual background

In the past decade, sustainable development has become the driving paradigm associated with effective management of environment resources and the corner stone for long term human development (Hopwood et al., 2005; Swilling and Annecke, 2012). This is due to the fact that the traditional approach, which tends to create strictly protected areas for conservation by prohibiting or restricting access to natural resources, has failed to deliver results that cater for human development (Speth and Haas, 2006). Owing to the growing human population and the high demands for natural resources, environmental problems have intensified (Speth and Haas, 2006; Lockwood et al., 2010), leaving one to wonder whether existing mechanisms for managing the environment are actually working. For example, promoting socio-economic development while at the same time ensuring biodiversity conservation (WCED, 1987), has become problematic (Taylor, 2010; Nguyen and Bosch, 2013) and increasingly conflictual (Cuong et al., 2017a). The rate at which biodiversity is being degraded as a result of human development around the world is unprecedented (Tang et al., 2010; Taylor, 2010) and South Africa is not an exception to the rule (Burgess, 2012). The state-centred governance approach which uses regulation and coercive powers to manage the environment has proven inadequate (Ansell and Gash, 2007; Wyborn and Bixler, 2013). Hence, the need was identified for a new governance system capable of reconciling conservation and socio-economic development. The most promising system that emerged was that of collaborative governance. It offers the platform for collective engagement and balanced decision making between state and non-state actors

(Müller, 2010; Yeboah-Assiamah et al., 2016). The concept of biosphere reserves is one such example of collaboration where a sustainable balance between biodiversity conservation and socio-economic development is actively promoted (Cuong et al., 2017b; Pool-Stanvliet et al., 2018). Today, many institutions around the world are encouraged to adopt this collaborative governance approach which seems to be best suited for dealing with the problems of conflict associated with biodiversity conservation and socio-economic development. Referred to, as co-management by some authors (Carlsson and Berkes, 2005; Armitage et al., 2008), network governance, or public-private partnerships by others (Hockings et al., 2006; Mu and De Jong, 2016), collaborative governance has gained considerable ground, and is now regarded as a better alternative to the state-centred approach (Lockwood et al., 2010:987; Young, 2011). Despite the enthusiasm in and use of collaborative governance, a simple question remains: What is the effect of collaborative governance on environmental and socio-economic development outcomes in a biosphere reserve?

1.3 Rationale for the study

Although collaborative governance has gained visibility in the environmental sphere, probably due to how it is viewed as offering a broader framework for dealing with environmental issues, (Lockwood et al., 2010:987; Young, 2011:19855), it has also faced calls for assessment particularly as it relates to its effect on outcomes (Conley and Moote, 2003:371; Thomas, 2008:3; Emerson and Nabatchi, 2015). Although some studies have focused on understanding collaborative governance and how it functions (Koontz and Thomas, 2006:11; Emerson and Nabatchi, 2015:720), others have explored the principles that underpin collaborative governance and how these principles help to promote sustainable development (Lockwood et al., 2010:2). While some other studies have examined the conditions under which collaborative governance succeeds or fails (Ansell and Gash, 2007:543; Benson et al., 2013:751) only a few studies have actually investigated the effect of collaborative governance on environmental and socio-economic development outcomes (Koontz and Thomas, 2006:113; Ansell and Gash, 2007:549). The concept of biosphere reserve, which adopts a collaborative posture in achieving its objectives, provides the adequate scope for undertaking such

an investigation. For Young (2011), the lack of empirical evidence about whether collaborative governance improves or worsens environmental conditions, is something that needs to be addressed if one aims to guarantee sustainable outcomes (Young, 2011:19853). This argument supports the observation of other scholars who argue that without assessment, it may be difficult to emphatically prove that collaborative governance produces better results in comparison to other governance systems (Conley and Moote, 2003:373; Wiggins and Damore, 2006:51). For Koontz and Thomas (2006), there is a cause-effect relationship between collaborative process and collaborative outcomes. For them, an effective collaborative process leads to positive outcomes, in the same way an ineffective collaboration leads to undesirable outcomes (Koontz and Thomas, 2006:113).

Thus, to investigate the effect of collaboration on outcomes, this study will use the Kogelberg Biosphere Reserve (KBR) as a case study. The KBR is located in the Western Cape Province of South Africa. It is a community initiative formally recognised in 1998 under the Man and the Biosphere (MAB) Programme of the United Nations Educational Scientific and Cultural Organization (UNESCO), as a promising tool for managing the commonly shared environmental resources in the Kogelberg region (Müller, 2008:94). The KBR uses a collaborative governance arrangement comprising both state and non-state actors which makes it an interesting case to study.

1.4 Problem statement

Much of the contemporary debate around environmental management is about the need to adopt alternative governing systems to the state centred system of command-and-control (Emerson and Nabatchi, 2015; Yeboah-Assiamah et al., 2017). There has been calls for governing systems that better promote sustainable development (Young, 2011:19853; Swilling and Annecke, 2012). Even with the emergence of collaborative governance, environmental problems keep occurring. Recent studies shown that natural resources are declining at an alarming rate (Müller, 2008:87; Lockwood et al, 2010:2-4; Yeboah-Assiamah et al., 2017:2), the reason being that the existing governance systems, including collaborative governance which was perceived as a promising

alternative, may be failing to deliver expected outcomes (Ansell and Gash, 2007). While some authors believe the problem lies in the inadequacy of environmental laws and policies to command commitment from stakeholders and enhance implementation, particularly in biosphere reserves (Thomson et al., 2007; Plummer et al., 2017), others argue that a legislative framework may take away the flexibility inherent to collaborative governance and overburden implementation (Cuong et al., 2017b; Davies and White, 2012). So far, the general approach has been to emphasise the benefits of collaborative governance in terms of public value, social capital and equity (Müller, 2013; Borrini-Feyerabend et al., 2004) and in terms of balancing competing imperatives (Ansell and Gash, 2007). Other studies on the scope, structure and processes of collaborative governance have also been realised (Koontz and Thomas, 2006:112) but the concern remains the need to understand the actual effect of collaboration.

Although few assessments have been attempted, critics are sceptical, because they think social justice and equity issues are not adequately addressed in these assessments (Carlsson and Berkes, 2005; Young, 2011). For Koontz and Thomas (2006) the point is to prove that collaborative governance improves outcomes, and to do so, some empirical evidence may be required (Koontz and Thomas, 2006:117). For Conley and Moote (2003), assessing collaborative governance will not only help to understand the relationship between collaborative governance and collaborative outcomes (Conley and Moote, 2003:373) but also help to establish the effect of collaborative governance on environmental and socio-economic outcomes (Conley and Moote, 2003:373). Assessing collaborative governance will help to understand the variables that influence collaborative governance (Biddle and Koontz, 2014:275) and in the case of a biosphere reserve how those variables shape outcomes (Cuong et al., 2017b). Although much has been written about the why and how of collaborative governance (Borrini-Feyerabend, 2004; Müller, 2013; Yeboah-Assiamah et al., 2016), little is known about the effect that collaborative governance has on development outcomes (Koontz and Thomas, 2006:111; Young, 2011:19853). Although, a recent study by Biddle and Koontz (2014) reveals that collaborative governance improves outcomes particularly environmental outcomes (Biddle and Koontz, 2014), Young (2011) insists that “*there is still much we*

can do to add to our understanding of the effectiveness of the environmental regimes; particularly the degree to which they are successful in solving environmental problems or mitigating their effect” (Young, 2011:19853).

1.5 Research aim and objectives

The aim of this study is to assess the effect of collaborative governance on environmental and socio-economic development outcomes in a biosphere reserve.

To do this, the study seeks to:

- i. Use the literature to develop a general framework for assessing collaborative environmental governance;
- ii. Explore international agreements and policies, and the South Africa legislative and policy framework relating to environmental management and biosphere reserves and whether it supports sustainable development and collaborative governance;
- iii. Assess the collaborative governance experience in the KBR using the assessment framework developed above; and
- iv. Explore lessons from collaborative governance in the KBR and make recommendations for improving collaborative governance in South Africa

1.6 Methodology, research design and methods

According to Mouton (2001) a research design is a “plan or blueprint about how one intends to conduct a research study” (Mouton, 2001:55-56). It serves as a guide for data collection, analysis and interpretation (Bless and Higson-Smith, 1995:63) and further helps to answer the question about what type of study is required to achieve the research objectives (Mouton, 2001:56). Thus, this study adopted a literature review and an exploratory case study approach consisting of primary and secondary data as the main elements of the design (Mouton, 2001:150). The literature review explored relevant themes to develop a framework for assessing collaborative governance, which is later applied to the case study. Specifically, this study used published literature from around the world and from South Africa to develop the assessment framework. This form of review, according to Brynard et al. (2014) helps to ascertain what has been written

about the research topic, what gaps exist in order to establish where one's research can fit. The second part of this research is an exploratory case study of the KBR, which uses the assessment framework developed to assess the collaborative governance experience in the KBR. According to Baxter and Jack (2008) an exploratory case study is used where there is limited data available to explain the causal link between an event and its outcomes, and also where a high degree of flexibility and independence is required for data collection (Baxter and Jack, 2008). For Flyvbjerg (2011) a case study provides a unique context for analysing the dynamics of a specific event happening in a specific place and within a specific time frame (Flyvbjerg, 2011). In addition, a case study offers more details, richness, completeness and variance about an event (Flyvbjerg, 2011:301). Although case study findings are difficult to generalise, Flyvbjerg (2011) insists, they can still serve as a point of departure for future research and generalisation (Flyvbjerg, 2011:302).

The exploratory case study approach made use of both secondary and primary data (Mouton, 2001:150). Specifically, this case study used published literature, archived documents, repositories, annual reports and files from different sources to provide data to use in applying this developed framework to explore the collaborative governance experience of the KBR. The periodic review report of the KBR, which gives the ten-year account of implementation of the biosphere programme, was also analysed. Previous consultation reports, status quo assessments and existing databases were also explored. To beef up the literature findings, a small number of 25 one-on-one interviews and informal discussions were also conducted (Bless and Higson-Smith, 1995:106). The interviewees, aged between 20 to 70, comprised 7 local community members, 4 state agency officials, 3 conservation managers, 4 private businesses, 2 farmers, 2 members of the KBR management team, 1 member of a water catchment management agency, 1 academic and former member of the KBRC advisory board, and 1 person from a Non-Governmental Organisation. The interview questions were based on the elements in the assessment framework and administered individually. A purposive sampling technique was used to select respondents based on experiences and involvement in the KBR. Target participants comprised officials from the Provincial

Department of Environmental Affairs and Development Planning (DEADP), Overberg district Municipality, Theewaterskloof Municipality, a few members of the KBR Advisory Board, local businesses and members of the local or rural community. This approach obviously resulted in a chain sampling technique, which happens when a well vested respondent suggests another person worth interviewing to either confirm or refute a claim (Bless and Higson-Smith, 1995:89). The unit of analysis was the documents as well as the individual respondents and the KBR collaborative process. Data collected were analysed using a thematic content analysis, where similar answers were grouped together according to key themes in the assessment framework. The results were analysed and presented in a mix of narratives and direct quotation from respondents, which is a method often used to provide a first-hand account of events as experienced by respondents, and also provide an accurate interpretation of findings and conclusions (Corden and Sainsbury, 2006:11). Summaries of findings were also presented in chart formats to offer visual overview of results analysis.

1.7 Ethical consideration

Permission was sought from the KBR to access periodic reports, background documents, previous interview summary reports and status quo assessment reports. A small number of interviews and informal discussion were conducted, after obtaining ethical clearance from the University's Research Ethical Committee. Before the interviews, emails were sent to respondents informing them about the research and its objectives and meeting dates were confirmed. Most of the interviews with the local community people happened on the site. Hard copies of the consent forms were handed to respondents before interviews and in a few cases, these forms were sent by email to the respondents. Respondents were informed of their right to participate in the research or not, incurring no consequences whatsoever. They were also guaranteed anonymity in order to protect their identity due to the sensitive nature of some of the discussion topics, and so they can freely give their candid views and appreciation of things. Although not named in this study, the list of interviewees is held by my supervisor at the School of Public Leadership. Most of the interviews lasted between thirty minutes to one hour and the interview questions were informed by the thematic elements in the

assessment framework. Interview notes were kept, but no audio recordings were made of the interviews. In brief, one could say that this was low ethical risk research.

1.8 Chapter outline

This study is organised into five main chapters:

Chapter one deals with the introductory section of the study. It presented the general introduction of collaborative governance and followed with the problem statement, research aim/objectives. This chapter also covered the design and methodology concerning how data was collected, who the target participants were, what sampling technique was used, and what unit of analysis was investigated.

Chapter two focuses on the literature review which covered what has been written about collaborative governance and what is left uncovered. This review provided the foundation for understanding the various concepts, theories underpinning collaborative governance and helped to develop the framework that was later used to assess collaborative governance in the KBR.

Chapter three gives a short overview and analysis of the relevant international, National and Provincial policy frameworks and agreements relating to sustainable development, environmental management, biosphere reserves and collaborative governance, applicable in South Africa.

Chapter four examines the case study. It presented a descriptive background of the KBR and touched on its history in relation to collaborative governance. It explored the challenges facing the KBR, who its key actors are, how decisions are made, and what outcomes have emerged from its collaborative efforts. Baseline information and existing reports were examined in light of the proposed framework and contrasted with interview findings.

Chapter five covers the conclusion and recommendations. It presented a brief overview of the research objectives and highlighted the findings. It explained how this study went about answering the research questions, what were the findings and what were the implications. It further highlighted the lessons learnt from the case study, and made recommendations on how collaborative governance could be improved.

Chapter 2: Literature review

2.1 Introduction

This chapter reviews existing literature on collaborative environmental governance. It begins by giving a broad background of sustainable development and elucidates what it entails in terms of environmental governance. It discusses the concept of biosphere reserve and makes a case for collaborative governance in promoting sustainable development. A definition of collaborative governance is offered and contrasted with other forms of governance which are often used interchangeably with collaborative governance. The review further emphasises some of the conditions under which collaborative governance succeeds or fails, and ultimately present a general framework that can be used for assessing collaborative environmental governance.

2.2 Sustainable development

It is important to acknowledge that although much has been written about the topic, sustainable development remains a very contested concept (Moore, 2015, Hopwood et al., 2005). There are disagreements over what should be sustained and how should this be done (Jabareen, 2008; Swilling and Annecke, 2012). For example, the Brundtland Commission defined sustainable development to mean “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” (WCED, 1987). Although heavily criticised for being too people-centred (Blewitt, 2008), too socio-economic development oriented (Moore, 2015), too soft on conservation matters (Hopwood et al., 2005), too vague in interpretation (Mebratu, 1998), and likely to mean anything to anyone (Swilling and Annecke, 2012), this definition of sustainable development, to which the National Environmental Management Act, 1998 (Act 107 of 1998) also known as NEMA subscribed, established the framework for environmental conservation and development (Hattingh, 2001:5). It advocates for economic growth as a solution to eradicating poverty, advancing social equity and promoting environmental conservation, while emphasising the need to take future generations and their needs into consideration when making

present decisions (WCED, 1987). The Rio+20 report “The Future We Want” also emphasises the need to promote participative decision-making and more equitable distribution of resources as a way to achieve internationally agreed development goals (UNCSD, 2012:9), while the 2030 Agenda for Sustainable Development recognises the interlinkages between conservation and development challenges and call for integrated solutions (UNGA, 2015:5). There is also the African Union Agenda 2063 which advocates for human rights and equal opportunity for all as prerequisite for a sustainable future (African Union Commission, 2015:12). In South Africa, sustainable development is defined in NEMA as “...*the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations*” (RSA, 1998a). It acknowledges the social, economic and environmental dimensions of sustainable development, emphasises the principles of intergenerational and intra generational equity supported by the Brundtland Commission, and recognises the crucial role that governance plays in stitching the different parts together (National Planning Commission, 2008). Seemingly, sustainable development is also the subject of many theoretical arguments (Blewitt, 2008; Jabareen, 2008). On one hand, those who believe that sustainable development is an ethical dialogue (Moore, 2015; Hattingh, 2001), and on the other, those who think sustainable development is an environmental affair (Mebratu, 1998; Swilling and Annecke, 2012). There are those who argue sustainable development is about building resilience (Berkes, 2007; Blewitt, 2008), and those who are convinced that sustainable development is simply a social issue (Missimer et al., 2010; UNRISD, 2012).

For ethics supporters, humans and nature are all part of one and the same earth community of living and non-living things (Leopold, 1966:220; Hattingh, 2001). They depend on each other to exist so valuing nature’s rights over human’s rights cannot deliver sustainable development, in the same way advocating development over conservation can also not produce long term outcomes. Hence, the need to find a fair balance which, according to Swilling and Annecke (2012) can also not be achieved without some behavioural changes (Swilling and Annecke, 2012). For environmental

proponents, sustainable development is about protecting the planet and its resources from human exploitation. The reality of resource depletion associated with rapid economic growth, pointed out by Meadow et al. (1972) in “*the limits to growth*”, and the consequences of overpopulation, echoed by Ehrlich (1968) in “*the population bomb*”, have somehow influenced opinions. The argument goes that society needs to change its patterns of production and consumption, if the next generation is to stand any chance of meeting their own needs (Blewitt, 2008). The world population will reach 9 billion by 2050 (United Nations Population Fund, 2017) and giving the rising demand for land and resources (Swilling and Annecke, 2012), one cannot but concur with IUCN et al. (1991) that sustainable development is essentially about the environment. About the social argument, the Brundtland Commission recognised that the problem of poverty cannot be solved unless there is economic growth through which the poor is able to satisfy their basic needs for food, shelter and jobs (WCED, 1987). It suggests that one pays attention when it comes to livelihood development and benefits sharing across generations (WCED, 1987). Besides the above narratives, McKenzie (2004) argue that sustainable development is not squarely only about the three dimensions, nor its definition, but more about the context in which it is applied (McKenzie, 2004:5).

This seems the case in South Africa where the legacy of apartheid, which was characterised by harsh economic disparities and social inequality, may have reframed what sustainability is. For Swilling and Annecke (2012) there is a need for a just transition where the inequality gap between rich and poor is addressed through deliberate actions and interventions (Swilling and Annecke, 2012). For them, sustainable development should not only be about the three dimensions (social, economic and environmental) because there are other factors such as the political, cultural and physical or built-environmental factors which could also influence the prevailing context and determine outcomes (Swilling and Annecke, 2012). In support of this argument, Allen (2009) suggests that sustainable development should be seen as comprising of five dimensions: social, economic, environmental, built-environment and political dimensions (Allen 2009). The economic dimension emphasises growth without depleting the resource base, the social dimension advocates for the equitable

distribution of resources, the environmental dimension touches on the wise use of resources, the built-environment dimension covers aspects related to technologies and land use planning and development, and the political dimension relates to the institutional enabling environment within which the other four dimensions unfold (Allen, 2009).

2.3 Biosphere reserves

The concept of biosphere reserves emerged out of the Man and the Biosphere Programme (MAP) of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and was formally launched in 1970 (Pool-Stanvliet, 2013). It aims to reconcile conservation and socio-economic development in order to improve human livelihoods and alleviate poverty (Stoll-Kleemann and O’Riordan, 2017). In other words, a biosphere reserve has three functions: a) promote biodiversity conservation, b) foster economic and human development in an ecologically friendly manner, and c) serve as a learning site to better understand human-environment interactions (Reed and Massie, 2013). These functions are implemented within the zonal configuration of core, buffer and transition areas of the biosphere reserves. The core is mostly devoted to biodiversity conservation, the buffer is where only activities compatible with conservation objectives are allowed, and the transition is where sustainable management practices are promoted (Pool-Stanvliet et al., 2018:2). Biosphere reserves are part of a global network of sites which encourages learning and experimentation as a way to strengthen sustainable development efforts. Today, there are more than six hundred biosphere reserves around the world, serving as model sites for demonstrating conservation alongside sustainable development (UNESCO, 2017:52). South Africa is home to nine biosphere reserves of which four are located in the Western Cape Province (Pool-Stanvliet et al., 2018).

For Cuong et al. (2017b), a biosphere reserve is a land use management mechanism and a tool for harmonising interaction between the usually conflicting imperatives of conservation and socio-economic development (Cuong et al., 2017b). The essence of the biosphere reserve is to promote landscape management or an integrated approach

to conservation and development, by bringing together all relevant interests and disciplines for the purpose of achieving sustainable development (UNESCO, 1996). In South Africa, biosphere reserves are seen as vehicles to practically drive conservation and environmental resource management at landscape level (Pool-Stanvliet et al., 2018). What distinguishes biosphere reserves from protected areas is that, protected areas are dedicated to biodiversity and ecosystems conservation while biosphere reserves are concerned about conservation and sustainable development (Reed and Massie, 2013). Human activities are either limited or prohibited in protected areas, while in biosphere reserves, human needs and livelihoods are emphasised. It is often a common occurrence to have a protected area form part of the core of a biosphere reserve (Cuong et al., 2017b). Given their function as a model for sustainable development, biosphere reserves have drawn from existing frameworks underpinning sustainable development to re-define their scope as presented in the figure below:

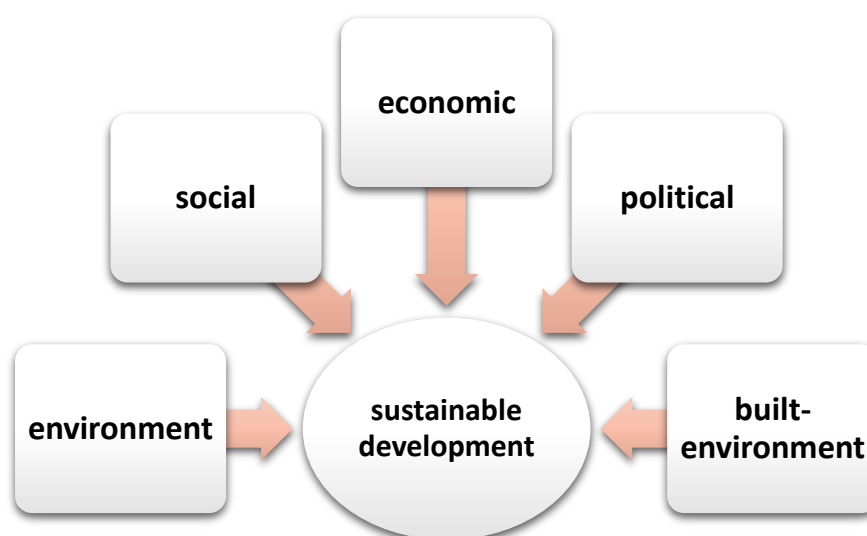


Figure 2.1: The Five Dimensions of sustainable development from a biosphere perspective

Source: Adapted from Allen, 2009

From the above, it seems one cannot achieve sustainable development in a biosphere reserve without going beyond the environmental and socio-economic considerations to include the physical environment, the political factors and the cultural dimensions

(Jabareen, 2008; UNESCO, 1996). For very long sustainable development has only been linked to environmental and socio-economic development (WCED, 1987; Mebratu, 1998; Moore, 2015), but the notion that the built-environment and the political factors and culture also influence outcomes is increasingly being acknowledged (Allen, 2009; Moore, 2015). The built-environment consists of the physical buildings and infrastructures in the environment, and according to Allen (2009), it is important to mainstream this into planning and policy decisions in order to foster sustainable development (Allen, 2009) particularly in a biosphere reserve where human habitation and livelihood developments are allowed within the boundaries of the biosphere. As Stanvliet and Parnell (2005) observed, it is the way built-environments are developed and managed that will determine the future of the planet (Stanvliet and Parnell, 2005:2). With regard to the political dimension, which comprises the governing systems and structures that guides institutional decisions, Allen (2009) argued that sustainability is also about the prevailing political systems (Allen, 2009; see also Stoll-Kleemann, 2007; UNESCO, 2017).

2.4 The role of governance in promoting sustainable development

Based on NEMA's definition, one could note a clear emphasis on an integrated governance approach through which sustainable development is mainstreamed into environmental planning, implementation and decision making processes (RSA, 1998). The fact that environmental decision-making is highly fragmented, because environmental functions are not attributed to a single institution, is a challenge for integration (Müller, 2007). The fact that prevailing systems tend to separate environmental and socio-economic factors at planning and implementation levels seems to be another challenge for integration (UNCED, 1992). Sustainable development requires integration (UNCED, 1992) and according to Morrison et al. (2004) integration can only be achieved through co-operation. The concept of biosphere reserves, which emerged few decades ago, provides this platform for collaboration and holistic management of the environment (UNESCO, 1996; Cuong et al., 2017a; Pool-Stanvliet et al., 2018). In South Africa, it is the principle of co-operative governance,

which obliges all organs of state and spheres of governance to work together, which applies to environmental governance and biosphere reserves in the country.

2.5 Definition of collaborative environmental governance

Collaborative environmental governance has been the subject of many studies, most of which were inconclusive in terms of the exact definition of collaborative governance (Lockwood et al., 2010; Emerson and Nabatchi, 2015:718). Thus Yeboah-Assiamah et al. (2016:20) conceptualise collaborative governance to mean “the new governance system that emphasises on different stakeholders [forging allegiance between state and non-state actors] to prudently and methodically govern natural resources”. This conceptualisation, although lacking the precision of an operational definition, suggests a hybrid form of governance between state and non-state actors in managing natural resources (Ansell and Gash, 2007; Yeboah-Assiamah et al., 2016). An operational definition, according to Bless and Higson-Smith (1995) is explicit and covers the key elements of the concept that is defined (Bless and Higson-Smith, 1995:36).

Hence, the integrated framework for collaborative governance introduced by Emerson and Nabatchi (2015) which describes collaborative governance as “the processes and structures of public policy decision making and management that engage people [from] across the boundaries of public agencies, levels of government, and/or the public, private, and civic spheres to carry out a public purpose that could not otherwise be accomplished” (Emerson and Nabatchi, 2015:721). Obviously, this definition broadens the scope of collaborative governance. It goes beyond the conventional role players of collaboration to include civil society organisations and concerned citizens. It recognises the context of shared objectives and joint responsibility within which collaborative governance occurs and emphasises the benefits of joint decision-making. This interpretation goes even further to emphasize cross-sectoral integration of policies and actions as a way to optimize value and improve policy implementation (Conley and Moote, 2003:371; Lockwood et al., 2010:2). However, because the function of environmental administration is highly fragmented the challenge will be to coordinate

efforts and harmonise processes in order to guarantee a successful cross-sectoral integration (Müller, 2008:86).

In their definition, Ansell and Gash (2007) conceptualise collaborative governance to mean a “mode of governance which brings multiple stakeholders together in common forums with public agencies to engage in consensus-oriented decision making that is formal, consensus-oriented, and deliberative and that aims to make or implement public policy or manage public programs or assets” (Ansell and Gash, 2007:543-544). Elaborating further, Ansell and Gash (2007) attribute the lead role of collaboration to public institutions, which seems myopic, given the argument by Emerson and Nabatchi (2015) explaining that “collaboration processes can be formed in one of three ways: 1) they can be self-initiated, which is when participants come together after being inspired and galvanised by some other core stakeholders; 2) independently convened, which is when an autonomous third party assembles participants and initiates the interactions; or 3) externally directed, which is when outside entities with sufficient authority and resources incentivise or mandate participants to work together (Emerson and Nabatchi, 2015:162). Another important aspect of Ansell and Gash’s definition is about consensus-oriented decisions. Although this may not always be attained because interests in the environment are many and policies are not streamlined (Ansell and Gash, 2007:553-547), it is worth noting that when it comes to consensus decision-making, one needs to exercise caution. Because as observed by Koontz and Thomas (2006) getting everyone to agree on a matter does not necessarily always guarantee a quality decision (Koontz and Thomas, 2006:113).

Going deeper, one can note a few key elements that have now come to characterise collaborative governance. They include policy integration, shared learning, inclusivity, common resources, cross-sectoral integration, joint action and consensus decisions (Ansell and Gash, 2007: 544; Brisbois and De Loë, 2016: 775). Bringing home the point, it is worth noting that the state-centred approach to governance has over-emphasised the role of state institutions in environmental governance, while the role of non-governmental institutions, including community organisations, have been

relegated to the background. Now with the collaborative stance, emphasis is laid more on the interplay between state and non-state actors in governing the environment (Yeboah-Assiamah et al., 2016) which seems to be the picture that biosphere reserves now portray.

2.6 Typologies of collaborative environmental governance

The following table 2.1 sets out various typologies and sub-types of collaborative environmental governance. Although one can acknowledge that the term “collaborative governance” is often used interchangeably with other forms of governance because they share certain characteristics, it seems prudent to clarify the various meanings in order to establish possible deviations or similarities.

Table 2.1: Typologies of collaborative governance [developed by author]

Sub-types	What does it mean?	What is the difference?	Sources
Co-management	Implies the joint management of resources through power sharing and joint responsibility between state and community resource users	At the core of co-management is the notion of power sharing, inclusive decision making and mutual learning; whereas in collaborative governance the prime focus is on stakeholders’ engagement and collective decision-making. Collaborative governance is more of an institutional arrangement between actors of collaboration while co-management is seen as a partnership in which state and community resource users negotiate the authority and	Carlsson and Berkes, 2005; Yeboah-Assiamah et al., 2016; Borrini-Feyerabend et al., 2013; Agrawal and Lemos, 2007

		responsibility for managing natural resources	
Adaptive co-management	Refers to a structural arrangement within which stakeholders jointly manage natural resources while learning from their actions	Central to adaptive co-management is the concept of collaboration and learning-by-doing. Adaptive co-management takes care of the aftermath of collaborative governance by providing a platform for action on feedback from the collaborative process. Adaptive co-management therefore follows as a result of collaborative governance to foster corrective actions or change in a way that optimise collaborative outcomes and improve resilience	Armitage et al., 2008; Barwick et al., 2014
Community-based natural resource management	Implies community ownership and management of natural resources for livelihoods and benefit sharing	Community-based natural resource management is more like an informal arrangement between community members to collectively manage natural resources, while collaborative governance follows a more formal type of institutional configuration supported by some form of policy or legislative measures	Fabricius and Koch, 2004; Borrini-Feyerabend et al., 2013
Shared governance	Implies sharing of power and responsibilities between state	Shared governance entails sharing roles and responsibilities in managing natural resources through negotiation and multi-institutional	Hockings et al. (2006)

	and communities in managing natural resources	participation, while collaborative governance seems a typical example of shared governance	
Network governance	Refers to an inter-organisational arrangement where multiple agencies and organisations come together through alignment of goals, tasks and efforts to solve a common problem	Some of the characteristics of network governance, including the capacity to create synergy among institutions and solve complex policy problems regarding natural resources management are also shared with collaborative governance. In other words, collaborative governance also uses network of institutions to facilitate coordination of efforts towards managing natural resources	Yuba and Barata 2015; Ansell and Gash, 2007; Mu and De Jong, 2016
Stakeholder partnership	Implies collective engagement of public, private and community organisations to support implementation of public policies	Stakeholder partnership helps to mobilise different stakeholders' expertise and resources towards achieving common objectives. Partnership decisions are mostly consensus oriented. These features are also found in collaborative governance which relies on partnership from its stakeholders to advance its objectives	Benson et al., 2013; Leach et al., 2002
Public-private partnership	Refers to a working arrangements	This form of collaboration uses cross-sectoral engagement and shared dedication from	Agrawal and Lemos, 2007;

	between government, businesses and civil society organisations to achieve common objectives	stakeholders to achieve its objectives. It promotes synergy and relies on the commitment and competence of stakeholders to achieve results. Collaborative governance also partners with public and private stakeholders to achieve its objectives but mostly places a particular emphasis on community engagement	Brinkerhoff et al., 2011
Co-operative government	Requires that all spheres of government and organs of state coordinate their activities in order to maximise public value	Co-operative governance entails the intergovernmental co-ordination and harmonisation of policies, legislation and actions, whereas collaborative governance emphasises the integration of planning and implementation through co-operation	RSA, 1996 ; RSA, 1998a ; Borrini-Feyerabend et al., 2013

In light of the above, one could argue that collaborative governance does have some commonalities with other forms of governance. Some of these key elements include joint decision-making, multi-stakeholder engagement, participatory processes and common objectives (Ansell and Gash, 2007). The divergent views were basically about the role that consensus plays in decision-making processes and in conflict resolution (Conley and Moote, 2003).

2.7 Key elements of collaborative environmental governance

Drawing from multiple theoretical and empirical perspectives underpinning collaborative governance, various scholars have identified key elements that make up the core structure of collaborative environmental governance (Ansell and Gash,

2007:558; Cuong et al., 2017a; Benson et al., 2013; Emerson and Nabatchi, 2015). They are illustrated in table 2.2 below and are further discussed.

Table 2.2: Key elements of collaborative environmental governance

Elements	Meaning	Sources
System context	Refers to the political, legal, economic and socio-demographic environment in which collaborative governance unfolds	Ansell and Gash (2007); Koontz and Thomas (2006); Carlsson and Berkes (2005)
Legal and policy framework	Covers the laws and policies that regulate environmental management and establish the rules for operations and engagement with stakeholders	Emerson and Nabatchi (2015); Von der Porten (2013) ; Müller (2008)
Human and financial resources	Entail the human and financial capacities available for implementation of collaborative activities.	Cuong et al. (2017a) ; Morrison et al. (2004); Wiggins and Damore (2006)
Stakeholders	Refer to people who have interests in the environment, who can be affected by environmental decisions or who can influence environmental decisions	Chasek et al. (2010); Borrini-Feyerabend et al. (2004); Leach et al. (2002); Müller (2007)
Participation and inclusivity	Entails the level of involvement of all relevant stakeholders in collaborative decisions and actions	Pool-Stanvliet et al. (2018); Stoll-Kleemann (2007); Reed (2008)
Leadership	Refers to the management structure or individual persons responsible for initiating or managing collaborative processes	Emerson et al. (2015); Cuong et al. (2017a); Ansell and Gash (2007)

Conflicts	Deal with issues, clashes or oppositions arising from managing environmental resources	Redpath et al. (2012); Borrini-Feyerabend et al. (2004)
Power relations	Encompass the capacity of stakeholders to engage in collaborative processes and influence decisions	Brisboie and De Loë (2016); Plummer et al. (2017)
Governance system	Deals with the manner in which power is exercised by stakeholders in collaboration and how roles and responsibilities are assigned	Morrison et al. (2004); Lockwood et al. (2010); Emerson et al. (2015); Müller (2008)
Benefits	Connote observable improvement, effect, or change associated with collaborative processes and outcomes	Pool-Stanvliet et al. (2018); Borrini-Feyerabend et al. (2013)
Incentive systems	Refer to mechanisms in place to encourage collaboration among stakeholders, motivate actions and reward good practices	Jordan et al. (2005); Castro and Nielsen (2001); Tang and Tang (2014)
Level of awareness	Deals with how well informed collaborative stakeholders are, and what their understanding is when it comes to environmental management	Stoll-Kleemann (2007); Leach et al. (2002); Cuong et al. (2017a)
Sense of entitlement	Connotes the right or interest of collaborative stakeholders to access, benefit or use environmental resources	Borrini-Feyerabend et al. (2004); Yeboah-Assiamah et al. (2016)
Outcomes	Deal with the tangible or intangible results or consequences of collaborative processes and actions	Pool-Stanvliet et al. (2018); Plummer et al. (2017)

Monitoring systems	Entail mechanisms in place to review performance of collaborative processes, analyse actions and outcomes to improve management	Cundill et al. (2009); Cuong et al. (2017a); Leach et al. (2002); Reed et al. (2014)
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2.8 Principles of collaborative environmental governance

According to Lockwood et al. (2010), collaborative governance relies on some fundamental principles which guide its effective implementation. Collaborative governance entails the interaction of multiple stakeholders, processes and regulations and the way one could prudently steer this process may be through some guiding principles (Lockwood et al., 2010:6-12). These include: a) legitimacy, which is about who makes the collaborative decisions and how?; b) transparency, which reveals the conditions under which collaborative decisions are made; c) accountability, which deals with compliance of decisions with laid down rules and regulations; d) inclusivity, which advocates for the involvement of all stakeholders in decision making processes; e) fairness, which deals with equitable distribution of resource; f) integration, which talks about alignment of priorities and processes in order to avoid duplication; g) capacity, which covers knowledge, information and experience sharing from among stakeholders and h) adaptability, which is about experimentation and constant learning. Although these principles are expected to guide collaborative governance, Lockwood et al. (2010) argue they can also serve as indicators for assessing the institutional framework of collaborative governance (Lockwood et al., 2010:12).

2.9 Triggers and influencers of collaborative environmental governance

There are many factors that influence collaborative governance. Some factors triggers its formation and others determine its success or failure. According to Emerson and Nabatchi (2015), collaborative governance is likely to form where environmental problems are geographically dispersed and collective decision is required (Emerson and Nabatchi, 2015). For Young (2011), collaborative governance can emerge where there is environmental crisis or threat that requires the involvement of different stakeholders

(Young, 2011). Where there are overlapping policies and conflicting resource needs, collaboration becomes key to finding a fair balance, in the same way stakeholder perception of benefits also fosters collaboration (Borrini-Feyerabend et al., 2004). The existence of a legal mandate associated with devolution of powers from higher level institutions to local level institutions could also trigger collaboration (Conley and Moote, 2003). To determine success or failure, one needs to look at how fundamental factors such as leadership, incentives systems and benefits influence the collaborative process (Benson et al. 2013). For Cuong et al. (2017a), success comes when responsible governance is followed by active implementation and deliberate monitoring, but where these elements are missing, failure becomes inevitable (Cuong et al., 2017a). There are three attributes against which success or failure could be weighed: biophysical, institutional and community attributes (Benson et al., 2013).

Table 2.3 Influencers of collaborative environmental governance [developed by author]

Attributes	Success is likely where	Failure is likely where
Biophysical	<ul style="list-style-type: none"> • stakeholders see the value of the ecological properties to be preserved and commit themselves to preserving it for the benefit of present and future generations • there is a source of interest and attachment to the resource and the place to be protected • there is equitable access to the resource through a well-defined and understood notion of wise use and sustainable management 	<ul style="list-style-type: none"> • conflict between conservation and development imperatives are not adequately addressed • prevailing socio-economic development and cultural realities are ignored • institutions are either passive or unresponsive to emerging threats and changes and in the socio-ecological environment
Institutional	<ul style="list-style-type: none"> • there is adequate financial and human resources support from central government and other sources 	<ul style="list-style-type: none"> • there is a lack of legal mechanisms to support decision-making and a lack of

	<ul style="list-style-type: none"> • legal and policy mechanisms are in place, and adequate power is bestowed on relevant stakeholders to support planning implementation and monitoring • there are incentives systems to encourage critical stakeholders' engagement in collaborative decisions • the collaborative governance process is regarded as legitimate and fair for all stakeholders including the most vulnerable • there is synergy between institutions, lay-down rules and regulations are adequately followed and procedural mechanisms are in place to foster adaptation to change • there is a clearly defined vision embraced by all relevant stakeholders, and a proactive and committed leadership • there is a strong community buy-in because interactions are focused on the collective agenda, there is inclusivity and the process fits the demands of the environment and the needs of the people involved 	<p>autonomy from statutory institutions</p> <ul style="list-style-type: none"> • there is severe institutional fragmentation and lack of flexibility to allow adjustment in implementation • stakeholders exploit the collaborative arrangement to advance their personal agenda and interests • there are tensions and open conflicts between the state and the non-state stakeholders involved in the collaboration • there is a lack of political support and integration across interests, processes and decisions • there is no scope for negotiation or compromise, no mutual accommodation of views and opinions, and no space for potential conflict resolutions • there is a lack of trust among stakeholders, a lack of will to collaborate and a lack of commitment to the process • there are overlapping roles and responsibilities of individual institutions, and a lack of legal enforcement of compliance
Community	<ul style="list-style-type: none"> • the costs and benefits of collaborative actions are equitably 	<ul style="list-style-type: none"> • there is lack of empowerment, lack of participation and lack

	<p>shared among all stakeholders including the local community</p> <ul style="list-style-type: none"> • critical stakeholders are able to experience the tangible benefits of collaboration on their livelihoods • the human and social capitals are high enough to stimulate local stakeholders' engagement in the collaborative process • community people are empowered and alternative sources of livelihoods, incomes and jobs are encouraged 	<p>of community ownership of the collaborative process</p> <ul style="list-style-type: none"> • the legitimate needs and interests of the local community are ignored • there is no forum where the local community is able to participate in collaborative decisions and share its views and experiences • there is a negative perception from the local community about the value of the collaborative process
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Sources: Ansell and Gash (2007); Yeboah-Assiamah et al. (2016); Emerson and Nabatchi (2015); Conley and Moote (2003); Cuong et al. (2017a); Müller (2007); Pool-Stanvliet et al. (2018); Borrini-Feyerabend et al. (2004); Benson et al. (2013).

2.10 Indicators of effective collaborative environmental governance

Because collaborative environmental governance is a multi-disciplinary concept with multiple interpretations, it is not surprising that there is no consensus about what exactly successful or effective collaborative environmental governance means. The literature reveals that collaborative governance is deemed effective if it leads to successful ecological outcomes (Koontz and Thomas, 2006:113; Ansell and Gash, 2007); better institutional integration (Lockwood et al., 2010:10; Emerson et al., 2011:16); improvement in environmental decision-making processes (Emerson and Nabatchi, 2015:721); improvement in environmental and social conditions (Young, 2011; Koontz and Thomas, 2006); fair and sustainable outcomes (DEAT, 2007:54); enhanced policy integration and compliance (Emerson and Nabatchi, 2015:718); better clarity on key issues and concerns (Emerson and Nabatchi, 2015:57); helps solve or mitigate environmental problems (Young, 2011:19853); better conflict management (Emerson and Nabatchi, 2015:57); better leveraging and equitable distribution of resources

(Emerson and Nabatchi, 2015:718); and mutual benefits to all stakeholders (Müller, 2013:69; Yeboah-Assiamah et al., 2016:21). Although some scholars argue that the ultimate measure of success should be gauged by the improvement in environmental outcomes (Conley and Moote, 2003:374), others advocate the need to evaluate success through the lenses of sustainability, taking into account not only the environmental outcomes but also the socio-economic outcomes (Young, 2011; Benson et al., 2013; Pool-Stanvliet et al., 2018). This emphatically seems to suggest that collaborative environmental governance is deemed effective if it improves both the environment and human conditions.

2.11 Rationale for assessing collaborative environmental governance

According to Conley and Moote (2003), there are many reasons why stakeholders in a collaborative arrangement would want an assessment after investing their time, energy and in some instances, resources, into a collaborative process (Conley and Moote, 2003:371).

First, managers in the collaborative process see assessment as an opportunity to gauge their performance and learn from past experiences. Assessing performance can help to investigate how the collaborative process is faring in terms of results and where management attention or capacity may be required. Because biosphere reserves are regarded as experimentation sites, knowing what collaborative governance can or cannot do when it comes to balancing environmental and socio-economic imperatives remains a fundamental way of learning-by-doing (UNESCO, 1996:6). Without assessment it may be difficult to estimate the value that collaborative governance brings to sustainable development efforts, and even to know whether or not the biosphere reserve is achieving its objectives (Cuong et al., 2017a:13).

Second, collaborative stakeholders also want to know if the time and effort invested in the collaborative process is producing tangible results (Emerson and Nabatchi, 2015:181; Leach et al., 2002:646). Also whether the organisational goals and interests are being achieved, given the framework of the biosphere reserve where interests range

from social development, to biodiversity conservation, to economic development, and where stakeholders' participation is entirely voluntary and unremunerated (Reed, 2008). An assessment therefore can help to shed some light on whether the collaborative results are worth the time, energy and resources invested in the process (Stoll-Kleemann and O'Riordan, 2017:98; Conley and Moote, 2002:373). As Benson et al. (2013) observed, a positive result is likely to enhance stakeholders' engagement in the collaborative process, while a negative result could influence future commitments in the process (Benson et al., 2013:756).

Third, policy makers want assessment to evaluate whether existing laws and policies, particularly those related to environmental management and, by extension biosphere reserves, are adequate, and whether these laws are helping stakeholders to achieve their expectations. Apart from using assessment as a tool to evaluate policies and monitor compliance to norms and standards, one could also use assessment to influence legislative reforms or priorities (Young, 2011). Besides, policy makers want to know whether or not biosphere reserves are able, within the prevailing policy framework, to foster an integrated landscape management of resources (Pool-Stanvliet et al., 2018:8). Thus assessment could help to ascertain whether collaborative governance produces better results or not, when it comes to managing environmental resources. For Koontz and Thomas (2006) assessing collaboration is one way to inform future policy formulation and also influence resource allocation (Koontz and Thomas, 2006:111). Without it, it may be difficult to demonstrate the effectiveness of biosphere reserves in delivering a just landscape management (Pool-Stanvliet et al., 2018:8).

Fourth, donors and funding agencies want to know which governance effort to support that will help them achieve their organisational goals. They want to know whether the governance arrangement they are supporting financially or technically is producing the expected results (Cuong et al., 2017b). They are also keen to know what collaborative arrangement is flexible enough to deal with the complexities of environmental management and foster sustainability. This is why Young (2011) argued the need to assess collaborative governance in order to demonstrate not only its problem-solving

capacity, but also its relevance in mitigating environmental problems (Young, 2011: 19853).

Fifth, academics want to better understand how the theories of collaborative governance are applied on the ground like in a biosphere reserve, and as Conley and Moote (2003) observed, assessment is one way to practically test some of these collaborative theories (Conley and Moote, 2003:373). Besides the theoretical application, academics also want to understand how collaborative governance helps to strike a fair balance between conflicting imperatives. There is also the question of ‘under what circumstances do collaborative governance succeed or fail’, which is of interest to academics, and as Conley and Moote (2003) averred, an assessment could offer some insight (Conley and Moote, 2003:374).

Aside from the above, it is worth noting that there are mixed reactions when it comes to assessing collaborative governance. On one end there are proponents who believe that collaborative governance produces better results, hence the need for assessment to prove this point; and on the other, the critics who are convinced that collaborative governance does not deliver just outcomes, hence the need for assessment to demonstrate that this argument holds true (Conley and Moote, 2003:374). Besides, there seems to be a general support for the need to assess collaborative governance as a way to prove success or failure and determine replicability and adaptation (Koontz and Thomas, 2006:116; Benson et al., 2013). To do this assessment, Emerson and Nabatchi (2015) argued, care must be taken to first clarify what one aims to assess in relation to inputs, outputs, outcomes or processes; secondly to develop indicators that can effectively demonstrate the expected changes or results; and thirdly to identify the tools that can help measure the changes, in order to prudently navigate one’s way through the challenges that this kind of assessment could entail (Emerson and Nabatchi, 2015:181-184).

2.12 Challenges of collaborative environmental governance

Because collaborative environmental governance is not a linear process, it is subjected to multiple hurdles which can impede its effective implementation (Müller, 2008). There are socio-economic challenges, relating to the socio-economic realities that affect collaboration and influence outcomes (Pool-Stanvliet, 2014:241; Borrini-Feyerabend et al., 2013:36); institutional challenges, which come with the administrative bureaucracies of the collaborative process (DEAT, 2007:75; Lockwood et al., 2010:900); legal challenges, which are mostly related to the presence or absence of laws governing the collaborative process (Emerson et al., 2011:13; Brisbois and De Loë, 2016:776); and implementation challenges, which relate to the processes, power relations, resources and capacity relevant to the collaborative process (Pool-Stanvliet, 2014:241; Lockwood et al., 2010). Where there are laws and procedures, there may still be higher challenges like governments, who could interfere in collaborative processes and influence decisions towards socio-economic objectives (Stoll-Kleemann and O’Riordan, 2017:91). This is what brought Koontz and Thomas (2006) to ask: “What is the added value of collaborative governance if it improves socio-economic conditions, but worsens environmental outcomes?” Particularly so, in the present context where emphasis is no longer placed squarely on conservation but on promoting socio-economic development (Koontz and Thomas, 2006).

Collaborative governance can bring different stakeholders with different needs and interests to the same negotiating table, but when it comes to practical implementation, the process is confronted with the bigger challenge of institutional fragmentation and lack of coordination (Rossouw et al., 2004; Müller, 2008). Some of the institutional challenges are about institutional bureaucracy and lack of institutional memories (Ansell and Gash, 2007). There are other challenges that can emerge in the form of power interferences, where political interests influence collaboration and determine what outcome it produces. At times, the high record of leadership turnover in a collaborative arrangement, can also disrupt the momentum of the process and affect outcomes (Ansell and Gash, 2007:554). The lack of political interest and support for the collaborative process can also affect outcomes (Müller, 2008). The fact that

collaborative governance is a dynamic process characterized by constantly evolving imperatives is another challenge in terms of conceptualisation and practical implementation (Emerson and Nabatchi, 2015:5). Hence the need to take into consideration the context within which collaboration is evolving, as a critical point of departure, in order to ensure that collaborative actions and decisions are not improvised but tailor-made to reflect the realities on the ground (Yeboah-Assiamah et al., 2016:23).

2.13 Framework for assessing collaborative environmental governance

The literature reveals that collaborative environmental governance is far from being a straightforward process (Emerson and Nabatchi, 2015; Young, 2011). Understanding therefore what collaborative governance entails in terms of systems and processes, and how these elements come together to produce the desired outcomes, is the rationale for this assessment framework. The purpose is so that it can be used to explore any collaborative environmental governance example out there. Drawing from findings by Emerson and Nabatchi (2015), Yeboah-Assiamah et al. (2016), and Conley and Moote (2002), one is able to emphatically argue that collaborative governance is an iterative process that functions in a circle of system context, dynamics and outcomes as illustrated in fig. 2.2 below.

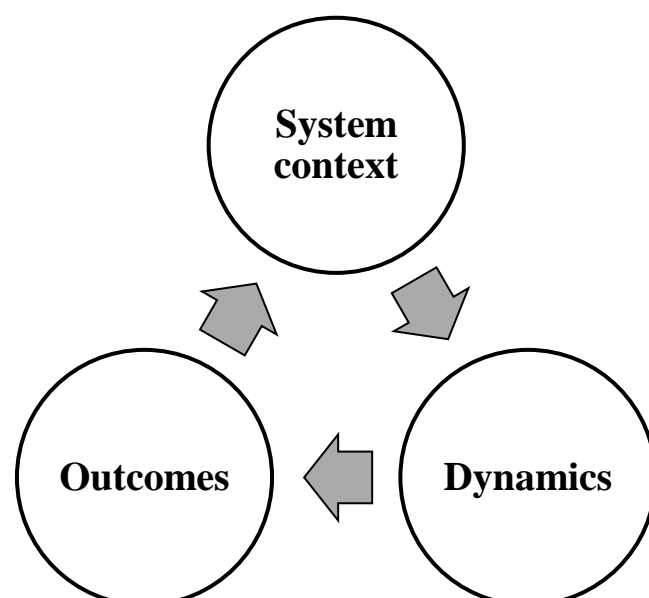


Figure 2.2: System approach to collaborative governance [developed by author]

Because collaborative governance is an interactive system of elements that are interconnected in a way that action in one affects the other, it is crucial to unpack these elements in order to understand how they function and how they influence each other. The breakdown of each of the aspects as categorised under the elements of system context, dynamics and outcomes is presented in the logical framework in figure 2.3 below.

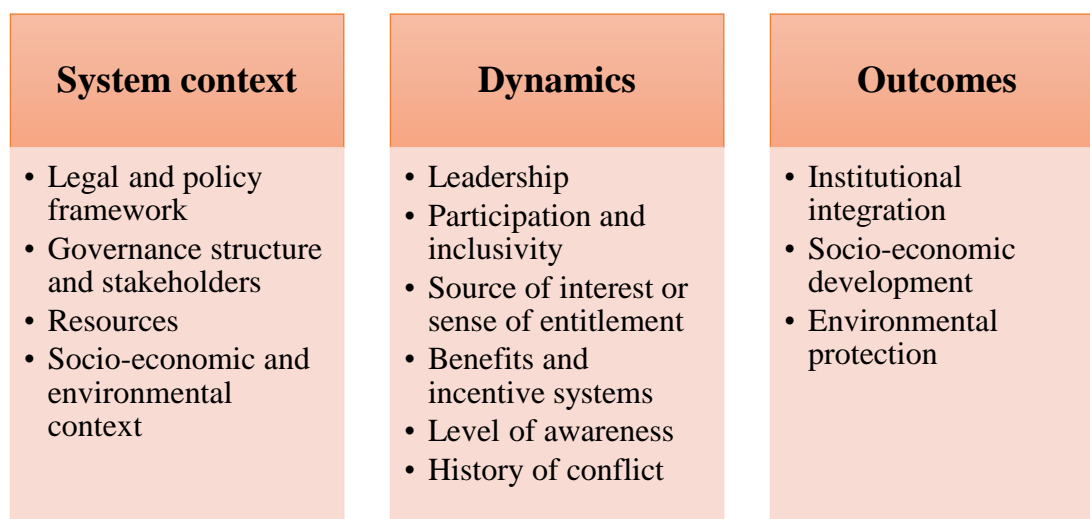


Figure 2.3: Logical framework for collaborative governance [developed by author]

Elaborating further, it is worth noting that the system context entails the elements that dictate the conditions within which collaborative governance evolves, the dynamics are the factors that stimulate or influence collaboration and determine how the process turns out, and outcomes are the results and benefits that are derived from collaboration. These elements are therefore unpacked in the following sections and further discussed.

2.13.1 System context

Regarded as the starting condition, the system context is where the needs and requirements for collaborative governance are taken into account (Ansell and Gash, 2007: 550; Speth and Haas, 2006: 1). The system context reveals a multi-layered configuration of systems within which collaborative environmental governance evolves. It includes “the host of political, legal, socioeconomic, environmental and other influences that affect and are affected by the collaborative governance regime”

(Emerson and Nabatchi, 2015: 26), and is described as the arena for interactions. The system context is also known as the enabling environment (Borrini-Feyerabend et al., 2004:382) or the external condition within which collaborative environmental governance unfolds (Emerson and Nabatchi, 2015: 40). For Carlsson and Berkes (2005), the system context is not simply the institutional environment within which collaboration occurs, but the system in which the rules of engagement in collaboration are crafted and defined (Carlsson and Berkes, 2005:69). The system context creates opportunities and threats that affect collaboration, thus understanding system context is crucial for navigating the processes and requirements of collaboration (Emerson and Nabatchi, 2015:40). For Koontz and Thomas (2006) designing collaborative governance in a way that fits prevailing system context and priorities is a way to guarantee successful outcomes (Koontz and Thomas, 2006). One of the starting element entails the legal and policy framework.

2.13.1.1 Legal and policy framework

The role of laws in regulating actions in collaborative governance is one that cannot be over-emphasised (Von der Porten, 2013). According to the Department of Environmental Affairs (DEA), laws provide the enabling environment for sound governance and also clarify roles and responsibilities for stakeholders. Laws including ordinances, policies and regulations provide the scope for governance and foster cross-sectoral integration (DEAT, 2007). Some of the issues addressed in the laws include environmental rights (Taylor, 2011), devolution of powers (Brisbois and De Loë, 2016), norms and standards (Koontz et al., 2006) sustainable development (Thomson et al., 2007; Plummer et al., 2017) and public participation (Yeboah-Assiamah, 2016). As Emerson et al. (2011) rightly put it, procedural rules and regulations are necessary to regulate stakeholders' interactions and control actions, particularly those that may be detrimental to the environment (Emerson et al. 2011:2). Policy requirements including norms and standards also provide common platform for interpretation. They serve as barometers for ensuring procedural uniformity and fairness across sectors and also facilitate implementation (Koontz and Thomas, 2006). Understanding therefore the legal and policy context within which collaborative governance unfolds is crucial for

knowing the boundaries within which human-environment interactions must be governed. Despite their relevance, laws or policies by themselves do not produce any material result on the ground (Emerson and Nabatchi, 2015). In some instances, they can become barriers for innovation (Emerson et al., 2011) and in other instances they constitute avenues for overlapping functions and more administrative burdens (Pool-Stanvliet, 2014:241).

2.13.1.2 Governance structure, resources and stakeholders

Government structure

To be able to function, biosphere reserves need a governing structure within which the basic protocols and rules of procedures are outlined (Reed et al., 2013). In South Africa, this structure is defined through the principle of co-operative governance which obligate all organs of state particularly those involved in environmental management, to work together (Müller, 2010). It advocates participatory democracy, which entails the involvement of all citizens in policy decisions, as a way to enhance stakeholder interactions. For Ansell and Gash (2007), it is crucial that this collaborative arrangement is open and inclusive because where critical stakeholders are side-lined, collaboration does not yield the expected results (Ansell and Gash, 2007:556). Inclusivity requires that all stakeholders are giving a fair opportunity to participate in collaborative decisions (Lockwood et al., 2010:994). While some are concerned about promoting inclusivity, others see the need to foster legitimacy through transparent decisions and actions (Koontz and Thomas, 2006; Wyborn and Bixler, 2013) in order to secure support from critical stakeholders (Lockwood et al., 2010:991).

Resources

Understanding resources to mean human as well as financial resources available for collaboration, Cuong et al. (2017a) observed that resource availability or unavailability is a major determinant of success or failure of collaborative governance (Cuong et al., 2017a:16; Morrison et al., 2004:246). In a biosphere reserve, limited resources can cause a great deal of stress on management and hamper operations as observed by

Cuong et al (2017a) in a recent study where the lack of both financial and qualified human resources hindered a biosphere reserve from completing its ten-year periodic review report (Cuong et al., 2017a:16). Lack of resources not only limits biosphere reserves in their implementation strategies, but also prevent them from pursuing any long term operations (Cuong et al., 2017a). At present, funding support for biosphere reserves in the Western Cape Province is provided through the Western Cape Provincial Department of Environment Affairs and Development Planning (DEADP), in the form of limited funds towards the logistic functions of the biosphere reserves (Pool-Stanvliet, 2013). To complement this support, some biosphere reserves have had to reach out to other sources of funding and partnerships (Cuong et al., 2017b:20). Externally-funded projects have become important funding avenues, but as observed by Cuong et al. (2017b), these projects funding sources are usually small and target specific, which may seem inadequate for landscape management like in a biosphere context. The private sector is another avenue that biosphere reserves should further explore to boost their funding prospects (Cuong et al., 2017b:24-26). Aside from the financial and human resources, there is ‘time’, which is another essential ingredient for collaboration. Like Wiggins and Damore (2006) put it, collaborative stakeholders need time to plan, time to interact with other stakeholders, time to implement joint-activities and time to take stock of what has been accomplished and adjust where necessary (Wiggins and Damore, 2006:51). Other equally important resources are the ‘space’ for day-to-day administration of the biosphere, and the ‘shared database’ of the collaborative stakeholders (Morrison et al., 2004:249). There is also social capital which could become a resource or a liability to the collaborative process (Castro and Nielsen, 2001:237).

Stakeholders

There is enough evidence to suggest that stakeholders are the backbone of collaborative governance (Chasek et al. 2010). Composed of state and non-state actors, they influence the configuration of collaborative arrangements and determine outcomes (Ansell and Gash, 2007:545). Leach et al. (2002) define stakeholders to mean “local citizens, landowners, businesses, national or local advocacy groups, trade organisations,

government entities including federal, tribal, state, local regulatory agencies, private stakeholders, non-profit organisations, service agencies, elected officials, and any individual or organisation interested in a particular policy issue” (Leach et al., 2002:647). For Ansell and Gash (2007), there are critical stakeholders like the vulnerable, the marginalised and the disadvantaged who should not be ignored when it comes to participation in collaborative decisions (Ansell and Gash, 2007). Because where critical stakeholders are engaged, success is guaranteed, but where they are excluded failure is inevitable. Besides, collaboration is deemed inclusive and fair when critical stakeholders are involved, but regarded as not representative and biased where critical stakeholders are not present (Ansell and Gash, 2007). It is clear that state institutions play the lead role when it comes to formulating legislation and policies (Chasek et al., 2010) but when it comes to implementation all relevant stakeholders must be involved (Borrini-Feyerabend et al., 2004). Collaborative governance is more than a one-man business (Müller, 2007), which means that no single institution, state or otherwise, can deliver expected outcomes without engagement from other stakeholders (Borrini-Feyerabend, 2004:342; Lockwood et al., 2010:9). For Emerson and Nabatchi (2015), collaborative stakeholders must not only be willing to work together, learn from each other or compromise where necessary, but also commit and be fully vested in the collaborative process (Emerson and Nabatchi, 2015).

2.13.1.3 Socio-economic and environmental context

One of the key influencers of collaborative governance is socio-economic and environmental conditions on the onset of collaboration (Taylor & de Loe, 2012). Thus, understanding the intricacies of these factors of development is crucial for establishing the needs, interests and concerns of stakeholders in the collaborative process (Borrini-Feyerabend et al., 2004: 47). According to Stoll-Kleemann and O’Riordan (2002), understanding how these different elements interact with each other is one way to identify the rights, claims and expectations of stakeholders and be able to gauge the opportunities and threats that may influence the optimisation of interactions between stakeholders in the collaborative process. Because the success of collaboration is interconnected with the realities in the socio-economic and environmental context, it is

crucial that these elements are examined in relation to land tenure, dominant economic activities and environmental resources in order to establish their potential individual weight and influence on the collaborative processes (Stoll-Kleemann and O'Riordan, 2002). Recognising people's right, needs and demands on the environment also helps to set priorities, orient development programmes and develop strategies to satisfy those needs without compromising the integrity or the sustainability of the resources (Yeboah-Assiamah et al., 2017). When it comes to socio-economic development and its implication for livelihoods, which entails the capacity of people to meet their basic needs, emphasis is rather put on ensuring sustainable livelihoods (Eckerberg et al., 2015). Thus, sustainable livelihoods refer to the capacity of people to secure their basic needs of food, clothes and shelter, and be able to adjust in times of changes. However, while some link livelihood primarily to food and basic human necessities, others argue that livelihoods mean jobs, employment, security and well-being (Reed and Massie, 2013) while yet others think livelihoods entail resilience and capacity to adapt to change (Davies and White, 2012). Because most livelihood opportunities rely on natural resources which keep dwindling, it is only logical to turn one's attention to livelihood diversification or alternative sources of livelihoods in order to cope with the rising demands for natural resources and be able to safeguard the environment (Borrini-Feyerabend, et al., 2004).

2.13.2 Dynamics

As Ansell and Gash (2007) observed, collaborative environmental governance functions in an interactive system of components and processes that are interdependent on a broader system context (Ansell and Gash, 2007:23). The relationship between these processes creates the dynamics that stimulate and influence collaboration (Emerson and Nabatchi, 2015). Consisting of leadership, incentives systems, participation and inclusivity, expectations and benefits, these dynamics shape collaborative governance and determine how the process turns out, in the form of outcomes that are either positive or negative (Emerson and Nabatchi, 2015).

2.13.2.1 Leadership

Considering the scope within which collaborative governance functions, one cannot but agree with Emerson et al. (2011) that leadership is a key determinant of success or failure of collaborative governance (Emerson et al., 2011:22; see also Cuong et al., 2017a:13). Leadership can foster positive as well as negative collaboration among stakeholders depending on the vision it portrays, seemingly supporting the argument by Emerson et al. (2011) that leadership does influence outcomes (Emerson et al., 2011:22). Because of how important leadership is for collaboration, Ansell and Gash (2007) argued the need to profile the role of the leader in a way that fits specific skills, competences and expertise necessary for collaborative governance (Ansell and Gash, 2007:554). For some scholars, a collaborative leader must possess some essential qualities like the motivation to lead, the will to engage stakeholders from across the divide, the spirit to facilitate participation of all stakeholders including the least powerful and the marginalised, and the motivation to encourage productive interaction among stakeholders (Wiggins and Damore, 2006:51; Cuong et al., 2017b:25). These qualities, Ansell and Gash (2007) argued, could help the leader to navigate his way through the ramifications of collaboration, and probably incite other stakeholders to also join in the process (Ansell and Gash, 2007).

In addition to that, the collaborative leader must also be cognizant of the socio-economic and cultural conditions of the area to manage, he must be able to promote a platform for dialogue, help reduce conflict among stakeholders and ultimately foster innovative ways to advancing the collaborative process (Stoll-Kleemann, 2007:37-38; Wiggins and Damore, 2006:51). In a biosphere reserve, leadership can either be a top position assigned to a team of key actors, board of directors for example, or a title bestowed on an individual person to lead the process, the manager or chair of the reserve (Stoll-Kleeman, 2007:37). Leadership can provide the impetus for bringing key stakeholders to the negotiating table (Wiggins and Damore, 2006:51) while ensuring that the less powerful stakeholders are not left out (Ansell and Gash, 2007:551). Thus, without a leader to mobilise stakeholders, set the ground rules for collaboration,

moderate influences, encourage synergy and promote mutual benefits, the collaborative process could be hijacked by powerful interests (Wiggins and Damore, 2006).

2.13.2.2 Participation and inclusivity

According to Morrison et al. (2004) the important things collaborative stakeholders want to know when it comes to environmental governance is: a) who is leading the process, and b) what are their powers? (Morrison et al., 2004:248). While the first interrogation connotes issues of participation in the collaborative process, the second touches on power relations and influences on collaboration. For Cuong et al. (2017a) successful collaboration is encapsulated not only in stakeholders' participation and also in their continued support for the collaborative process (Cuong et al., 2017a). In a biosphere reserve, stakeholders, particularly local people are key to effective implementation (Stoll-Kleemann, 2007:37; Pool-Stanvliet et al., 2018:8). Participation provides opportunities to better understand biosphere reserves and align needs and priorities. Participation increases acceptance and support for collaboration, and where mutual understanding is, productive interaction is guaranteed and sustained commitment is easily developed (Leach et al., 2002:654). For Reed (2008), the argument is not just about securing stakeholders participation for collaboration but rather leveraging on their participation through empowerment initiatives (Reed, 2008).

In terms of power relations, Brisbois and De Loë (2016) observed that conducting collaboration with no regard for power, is tantamount to evaluating outcomes without going through the process. The result evidently may not provide the full picture (Brisbois and De Loë, 2016:778). This is because collaborative governance is a platform for power sharing and joint responsibilities, and without power relations collaborative governance may simply be deficient. Some of the types of power identified in the literature include: a) decision-making powers (Emerson et al., 2011); b) planning powers (Ansell and Gash, 2007); c) delegated or decentralised powers (Koontz et al., 2006); d) implementation powers (Wyborn and Bixler, 2013); e) legislative powers (Emerson and Nabatchi, 2015); f) participatory powers (Plummer et al., 2017); and g) scientific, technical or traditional powers (Taylor and de Loë, 2012;

Yeboah-Assiamah, et al., 2017). To ignore the role of power in collaboration can lead to elite capture, which happens when powerful interests hijack collaboration to advance their own personal agenda (Koontz et al., 2006:113). For collaboration to succeed, power relations must be conjugated in a way that fosters mutual understanding and shared benefits for all stakeholders (Wyborn and Bixler, 2013).

2.13.2.3 Source of interest in and sense of entitlement to the resource

The literature reveals that the interests people have in the environment are as diverse as stakeholders involved in its management (Davies and White, 2012; Yeboah-Assiamah et al., 2016; UNESCO, 2017). Borrini-Feyerabend et al. (2004) identified some of these interests as related to a) close proximity to the resource, b) ancestral ties to the resource, c) ownership of the resource, d) customary right of access and use of the resource, e) legislative mandate to manage the resource, f) the level of dependency on the resource as source of livelihood and income, and g) the knowledge and skills in the environment (Borrini-Feyerabend et al., 2004:47). For Borrini-Feyerabend et al. (2004) when it comes to forging alliances with stakeholders to manage the environment, it is crucial that one understands what the concerns, relationships, claims, expectations and interests of the people are, in order to develop solutions that are tailored-made and fit for the reality on ground (Yeboah-Assiamah et al., 2016:26).

Realities that could be influenced by different types of powers including a) the power of position, which connotes the authority that a stakeholder may have to make or influence decisions; b) the power of a group of people, which refers to the capacity of a particular group of people to influence actions; c) political power, which may be seen as the authority held by a group of people to decide how public resources must be utilised and what direction development goals should take; d) economic power, which connotes access to financial resources and control over important means of production; e) people power, which implies the capacity of social movements to mobilise in defence or support for a cause; f) power of knowledge, which refers to the level of literacy and skills of the people; and g) legal power, which can be exerted through legal mandate or a court order (Borrini-Feyerabend et al., 2004:51). In their recent study on rising to the

challenge, Yeboah-Assiamah et al. (2016) found out that where people feel a sense of attachment to a resource, they are enthusiastic about investing their time, energy and efforts in supporting any effort towards protecting that resource (Yeboah-Assiamah et al., 2016:27). However, where people cannot see the value of a resource, or identify with any collective effort to manage it, probably due to past experiences, they may choose to sabotage the process or even refuse to comply with any outcome requirements (Borrini-Feyerabend et al., 2004).

2.13.2.4 Benefits and incentive systems

According to Jordan et al. (2005) incentives help to stimulate stakeholders' engagement and drive collaboration (Jordan et al., 2005: 479). Expected benefits from collaboration can also enhance stakeholders' engagement (Ansell and Gash, 2007). Collaboration requires time, energy and resources, and stakeholders want to know if their investments will yield any positive results (Ansell and Gash, 2007:552). Besides, tangible results can also provide strong incentives for stakeholders to collaborate, because it reveals whether or not stakeholders' views are being considered in decisions (Ansell and Gash, 2007:552). Empowerment programmes where training needs are fulfilled and communities are empowered to better engage in decisions can also provide incentives for collaboration (Leach et al., 2002:656). Although it is important that stakeholders' roles and responsibilities are made clear at the onset of collaboration, Ansell and Gash (2007) believe that it is equally important that the ground rules about who can participate, how decisions will be made and how resources will be allocated, are also made clear, in order to reassure stakeholders about the fairness and transparency of the collaborative process (Ansell and Gash, 2007:557). For Castro and Nielsen (2001) the prospect of long-term benefit or access to the resources and, in some instances, the security of land tenure can also provide incentives for collaboration (Castro and Nielsen, 2001:231). Where there is a power balance, dedicated funding and equitable distribution of resources, stakeholders may be drawn to collaborate. Although legislation does not produce any direct material result, favourable legislation could provide incentives that could facilitate collaboration and produce better results (Tang and Tang, 2014). However, where alternative avenues exist for stakeholders to achieve

their objectives, they may feel reluctant to collaborate (Ansell and Gash, 2007:556). When it comes to benefits as another incentive mechanism, Yeboah-Assiamah et al. (2016) argue that collaboration, when effectively done, can deliver trust and a network of relationships that could stimulate future engagements (Yeboah-Assiamah et al., 2016:21). For Wiggins and Damore (2006) abstract benefits are less motivating than tangible benefits that can be lived and experienced by stakeholders. This does not mean that benefits such as enhanced knowledge, meaningful participation and stakeholder expertise should be neglected (Wiggins and Damore, 2006:51). The fact that collaboration can be seen as a) a form of defense against environmental threats; b) a response to complex interrelated environmental problems; c) a platform for harnessing complementary capacities and resources; and d) an avenue for costs and benefits sharing, is a good incentive (Borrini-Feyerabend et al., 2013:34). The lack of accountability and unbalanced delivery of results could lead to discontentment from stakeholders which could ultimately become a disincentive for collaboration (Yeboah-Assiamah et al., 2016:21).

2.13.2.5 Level of awareness

When it comes to awareness, the 1995 Seville Strategy on Biosphere Reserves of UNESCO, which provides global guidance for implementation of biosphere reserves, recommends that biosphere reserves be used to further our understanding about the human-environment interactions (UNESCO, 1996). It suggests that awareness programs and education could be used to raise the visibility of the biosphere reserves and encourage meaningful participation of local communities. To do this, the Strategy recommends a communication strategy highlighting the role of the biosphere and its relevance for sustainable development (UNESCO, 1996). A recent study by Cuong et al. (2017a) reveals that awareness leads to support for collaboration, while lack of awareness leads to disputes and conflicts (Cuong et al., 2017a:13). Thus, the role of awareness in clarifying the functions of biosphere reserves is one that cannot be overemphasised, particularly in cases where biosphere reserves are easily mistaken for protected areas, probably due to the fact that they are being managed for biodiversity conservation only (Cuong et al., 2017a:13). Besides, communication can also help to

explain the relevance of collaboration, motivate stakeholders and win their support, because where stakeholders are meaningfully engaged in collaboration, they easily take ownership of decisions and easily accept consequences (Cuong et al., 2017a). Awareness also demands that one should not be quick to judge a collaborative process as a failed attempt, because educating people about the biosphere, winning their trust, reaching agreements, securing supports and implementing activities, takes time, particularly if there is a history of conflict, in which case, networking and individual relationships could provide a bridge (Leach et al., 2002:654).

2.13.2.6 History of conflict

Redpath et al. (2012) define conflict to mean a situation where two or more parties with different interests clash over a specific objective because of opposing views. Conflict arises where a) stakeholders differ in their understanding; b) hold different views and values; c) share priorities and interests that are incompatible; d) are marginalised in negotiations because of historical reasons; and e) harbour grievances against each other (Redpath et al., 2012). Conflict among key stakeholders can undermine collaboration and influence decisions. In environmental governance for example, conflict of interests is inevitable but, this can be managed provided concerned stakeholders are willing to compromise on their position (Borrini-Feyerabend et al., 2004). Often times, conflict in environmental management is associated with the right to access lands or use resources, or the unfair distribution of resources and benefits (Redpath et al., 2012). According to Emerson and Nabatchi (2015), conflict can erode the level of trust among stakeholders, and where trust is lacking, collaboration cannot succeed (Emerson and Nabatchi, 2015). A mistrust is simply an indication that there is lack of transparency and good faith in the way collaboration is conducted (Borrini-Feyerabend et al., 2004). As observed by Yeboah-Assiamah et al. (2016), trust can emanate from the cultural identity of the community, their past experience with successful collaboration, and their perception of fairness about the collaborative process (Yeboah-Assiamah et al., 2016). Although Redpath et al. (2012) acknowledge that conflict is a dynamic situation that can never be fully eliminated, they admit that there are mitigating factors such as dialogue, open communication, informal interactions, participatory decision processes,

and third party mediation, which could help reduce impact or prevent escalation in the future (Redpath et al., 2012; see also Yeboah-Assiamah et al., 2016). Sometimes conflict can be so intractable that it can only be addressed by eliminating the root causes of the conflict and transforming the underlying unequal structures, systems or resource divisions that created the conflict (Auvinen & Kivimäki, 2001).

2.13.3 Outcomes

The literature reveals that collaborative governance outcomes could be observed at the institutional, environmental and socio-economic levels. The institutional outcomes relate to the level of integration of collaborative processes; the socio-economic outcomes refer to the societal and economic benefits derived from collaboration; and the environmental outcomes entail the extent of improvement or change in environmental conditions (Conley and Moote, 2003; Plummer et al., 2017; Yeboah-Assiamah et al., 2016). Outcomes in relation to collaborative governance connote a) impact of collaboration (Plummer et al., 2017); b) results and effect of collaboration on the ground (Emerson and Nabatchi, 2015); c) intended consequences of collaboration (Cuong et al., 2017b); and d) achieved goals and objectives of collaboration (Cuong et al., 2017b). Although the tendency is to focus on the desirable outcomes, Emerson and Nabatchi (2015) caution not to overlook the undesirable outcomes, since they can serve as catalysers for adaptive management, which entails adjustment in action, in response to positive or negative outcomes (Emerson and Nabatchi, 2015:85). Outcomes could be short term or long term, they could be tangible or intangible, but what determines which outcome collaboration focuses on more than the others, remain the choice of the stakeholders (Plummer et al., 2017:3; Pool-Stanvliet et al., 2018). There could also be positive outcomes like harmonised institutions, enhanced social capital, better conflict management, better conservation and innovative practices, or negative outcomes like lack of trust, hostility, conflict and degradation (Yeboah-Assiamah et al., 2016). The prospect of learning and innovation coupled with network relationships and commitment for collaboration in the future could also be underlined as potential outcomes (Dietrich et al., 2010). Although the scope of this study is not to assess all the possible outcomes of collaboration as they relate to environmental governance, but to

focus on those relevant to biosphere reserves including the environmental and socio-economic outcomes, the study will attempt to assess also the process that led to these outcomes, in order to enhance understanding and establish correlations (Emerson and Nabatchi, 2015:210). Because collaborative environmental governance cut across many disciplines, it may be difficult, if not impossible, to identify one single indicator by which to assess collaborative outcomes. Understanding ‘indicator’ to mean a descriptive attribute of change or improvement in prevailing conditions, the following indicators are advanced.

Table 2.4: Criteria for assessing collaborative outcomes

Outcomes	Indicators	Sources
Institutional integration	<ul style="list-style-type: none"> • Improved co-operation and policy integration • Integrated communication and information sharing • Improved decision making processes • Enhanced implementation of joint decisions • Better dispute and conflict management 	Müller (2010); Yeboah-Assiamah et al. (2016)
Environmental protection	<ul style="list-style-type: none"> • Improved habitat and ecosystems management • Improved land use planning and management • Reduced environmental conflicts • Improved biodiversity conservation • Preserved ecosystems and landscape 	Hockings et al. (2006); Conley and Moote (2003)
Socio-economic development	<ul style="list-style-type: none"> • Equitable distribution and access to resources • Enhanced local participation in decisions • Alternative sources of livelihoods • Increased job creation and opportunities • Increased sensitisation and awareness • Attitude attitudes about and support for green practices and initiatives • Improved opportunities for creativity and innovation 	Emerson and Nabatchi (2015); Pool-Stanvliet et al. (2018)

Monitoring systems

Monitoring and evaluation is necessary for adaptive learning and improvement, particularly in cases where complexity and uncertainty are the hallmark of resource management (Cuong et al., 2017a:16; Cundill et al., 2009:3205). Monitoring relies on system mechanisms and stakeholders' co-operation to harness the performance of collaboration and the benefits of learning-by-doing. Apart from providing clarity, when it comes to understanding the intricacies of managing the human-environment interactions in relation to what works or what doesn't work, monitoring also helps to gather feedback to improve the way collaborative decisions are made (Cundill et al., 2017). Monitoring helps to promote transparency and accountability between management, funding agencies and collaborative partners. Although monitoring and evaluation is not regarded as a determining factor in the success or failure of collaborative governance, they are nevertheless seen as a crucial mechanism for collective learning and adaptive management (Leach, et al., 2002:656; Cuong et al., 2017a:15). Monitoring simply entails the need to check whether collaboration is having the desired effects (Leach et al., 2002:656), and one way to do this is by mainstreaming monitoring into collaborative planning processes (Leach et al., 2002:666).

2.15 Example of collaboration in biosphere reserves around the world

Although biosphere reserves operate in the same zonal configuration of core, buffer and transition areas, it may seem unfair to compare them against each other, given the fact that they evolve in different system context where dynamics are not the same (Reed et al., 2014; Cuong et al., 2017a), and success could be interpreted in any way one chooses (Hockings et al., 2006). However, given their essence as experimentation sites where policies decisions are tested and where knowledge and experiences are shared, one could afford to cast its net wide enough to draw a few lessons from the best practices that have emerged over the years.

Taking for example the case of the Bia Biosphere Reserve in Ghana, one could note the difference that law enforcement and capacity building has made in protecting wildlife and accommodating local development, against a backdrop of excessive commercial

hunting, intense logging, poaching and declining elephant population. In one sentence, Danquah et al. (2013) summarised the current trend in the biosphere reserve, saying “*elephant population seem to have recovered significantly, while poaching activities have much reduced*” (Danquah et al., 2013). Explaining this result, they argued that several factors may have contributed including: 1) the biosphere reserve status, which provided the necessary space for conservation and for development, 2) the conservation projects, which served at the same time the needs of both human beings and animals, and 3) the level of collaboration and law enforcement, on which note they added “*research and law enforcement were increased and more wildlife patrol staff were trained and equipped with improved monitoring and research techniques, while the wildlife protection itself is enforced by the Ghana Wildlife Division*” (Danquah et al., 2013:24). As part of this biosphere project, a green economy initiative was also undertaken, which helped community members to replace environmentally destructive livelihoods with greener ones, such as bee-keeping and farming with snails and mushrooms, in place of getting these resources from the surrounding forests.

In the case of Sahamalaza-Iles Radama Biosphere Reserve in Madagascar, the story is about how awareness initiatives about the negative impact of human activities on the biosphere got the local communities to change their perception and get involve in the management of the biosphere. As Raymond (2013) puts it “*once the local population is aware of the progressive damage to the natural resources, it is easy to involve them in the activities concerning the protected area*” (Raymond, 2013:194). Faced with the threat of immigration from other regions and its mounting consequences on the biodiversity and fishing activities in the reserve, the local population and the site managers were forced to mobilise (Raymond, 2013). Thus, with necessary support from the reserve management and partner institutions, the local population was motivated to organise themselves into local grassroots committees which actively spearheaded awareness activities and festivities which frequently bring all the local population together to share values and protect the reserve. In addition to that, members of the local grassroots committees have also taken it upon themselves to patrol the park, and also help with restoration projects. In some cases, they even help with conflict management,

to the extent where Raymond (2013) noted “*at the dawn of the political crisis, a large conflict between the park’s management and a number of local Sahamalaza politicians was resolved thanks to the Wise Elders Association*” (Raymond, 2013:192).

The case of Uckermark Lakes Nature Park in Germany, which is not an officially recognised biosphere reserve but managed as one, shows how a mix of a charismatic leadership and real incentive systems can make a huge difference in nature conservation and socio-economic development (Stoll-Kleemann and O’Riordan, 2011). Against the threats of unsustainable agriculture, intense fishing and tourism, the Uckermark Park’s strict conservation functions became ‘people management’ for conservation and sustainable use. With a substantial government funding designed to help the Park to secure conservation contracts with farmers, compensate for limitation on existing use, and purchase lands for conservation and stewardship program, the Uckermark Park has been able to reconcile conservation and development objectives in a way that has created a win-win situation for all interests in the region (Stoll-Kleemann and O’Riordan, 2002:167). Besides, the previous leadership of the Park, which was neither understood nor respected by land owners also got replaced by a person unanimously described as “a man with vision, communication skills, and a legendary capacity to create consensus in public meetings”. Ever since, this person has managed to reduce the skepticism and suspicion of people towards the Park and regained their trust. Even in instances where the local people disagrees with the Park, its administration still maintains that “*You need to work through the people who live in the area because it is only through a process of acting together, responding quickly and caring for people that full understanding is achieved and respect established*” (Stoll-Kleemann and O’Riordan, 2002:167).

2.16. Summary

The above cases show how enforcement power and implementation means, coupled with reliable funding and strong leadership, are strong determinants for a successful collaborative environmental governance, amidst the uniqueness of each case. In a nutshell, Chapter 2 sought to explain the concept of collaborative environmental

governance and establish how it promotes sustainable development in the context of a biosphere reserve. It highlighted the conditions under which collaborative governance produces positive results and provided a few illustrations of successful cases of collaborative governance around the world. The next Chapter, which deals with laws and policies relevant to environmental governance, establishes the regulatory framework within which collaboration environmental governance unfolds in South Africa.

Chapter 3: Policy and Legal Framework

3.1 Introduction

In this section, legislation and policies relevant to environmental governance in South Africa, but somehow applicable to collaborative governance in biosphere reserves are explored and discussed. These legal provisions span across the National, Provincial and Local government levels, and in some instances go beyond the boundaries of South Africa. There are a myriad of laws, policies and frameworks that regulate environmental governance in South Africa (see table 3.1). The scope of this study therefore is not to discuss all of the laws that apply to environmental governance in South Africa, but to highlight the most relevant ones, focusing on their provisions in terms of conservation, land use management, sustainable development, collaborative governance and public participation and to emphasise their relevance to biosphere reserves. Point of similarities are analysed, deviations are emphasised and enforcement challenges are subsequently highlighted.

3.2 Contextual background

Becoming a signatory country to UNESCO is to commit to abide by some obligations although fulfilment may differ from country to country. Thus through its Man and the Biosphere (MAB) programme established in 1971, UNESCO sets the ground-rules for promoting conservation alongside development. The Madrid Action Plan (MAP) which provided the implementation strategy of the Man and the Biosphere (MAB) programme from 2008 to 2013, also encouraged countries to improve their legal recognition of biosphere reserves, and where applicable, to include them in national legislation in order to enhance their implementation (UNESCO, 2008:16). In South Africa, this obligation was fulfilled through the environmental laws enacted under the provisions of the Constitution of the Republic and implemented by the government institutions responsible for environmental management.

3.2.1 International agreements

These international agreements provide the global framework for action in relation to biodiversity conservation and socio-economic development in a biosphere reserve, whether it is terrestrial or marine ecosystem designated, by a country under the UNESCO Man and the Biosphere (MAB) Programme which is further explained in the following section.

UNESCO Man and the Biosphere (MAB) Programme (1971)

The Man and the Biosphere (MAB) Programme of the UNESCO was launched some four decades ago to foster co-operation for biodiversity conservation. Since then, the concept has evolved from strictly focusing on conservation to embracing sustainable development (Pool-Stanvliet, 2013). Through education, science and culture, the MAB programme aims to forge a new way of understanding human-environment interactions focusing on implications for sustainable development (Bridgewater, 2016). Through the concept of biosphere reserves, the MAB programme is implemented around the world. With a global network of 669 sites in which biodiversity conservation is implemented alongside socio-economic development and shared learning (Reed and Massie, 2013), the MAB Programme seems to be proving its worth. Besides, the MAB Programme also supports implementation of some other global agendas, including the Convention on Biological Diversity (CBD), the UN Framework Convention on Climate Change (UNFCCC), and the 2030 Agenda for Sustainable Development (UNESCO, 2017).

The Seville Strategy on Biosphere Reserves (1995)

Following the first biosphere reserve congress in Minsk, Belarus in 1983 convened by UNESCO, UNEP, FAO and IUCN, an action plan for biosphere reserves was developed to guide implementation of the Man and the Biosphere (MAB) Programme. Adopted at the 2nd World Conference on Biosphere Reserves in Seville, Spain in 1995, the Seville Strategy builds on the proceedings of the Rio Conference on Environment and Development (1992), the Agenda 21 on sustainable development and the Convention on Biological Diversity (CBD). It provides global guidance for implementation of

biosphere reserves, within the framework that biodiversity conservation must be linked to socio-economic development in order to be effective (UNESCO, 1995:3). The Fourth World Congress on National Parks and Protected Areas held in Caracas, Venezuela, in 1992 also adopted many of the ideas from the Seville Strategy. Acknowledging the interaction between people and nature, the Seville Strategy recommends that biodiversity conservation be designed in a way that address not only the needs, but also the conditions, of the people in the biosphere. Thus, member countries are advised to mainstream biosphere reserves into their conservation planning and implementation strategies and support local participation (UNESCO, 1995). The Seville Strategy recommends to use biosphere reserves as models for land use management towards promoting conservation inside the core area and sustainable development within the buffer and the transition areas. Objective II.3 encourages countries to include biosphere reserves into their regional land use planning and development strategies and also involve major land-use sectors. Some of the issues around land use management revolve around ownership, tenure, stewardship, rights and interests for conservation, use, access or development. The Seville Strategy advocates for integration as a way to reconcile the different interests within the zonal configuration of the biosphere reserves in order to promote sustainable development (UNESCO, 1995).

Madrid Action for Biosphere Reserves (2008 – 2013)

Building on the Seville Strategy, the Madrid Action Plan (MAP) provides a plan of action for implementation of the Man and the Biosphere (MAB) Programme and its network of sites for the periods of 2008 to 2013. The Action Plan acknowledged the issues of rapid urbanisation, loss of biodiversity and climate change and recommended that collaborative efforts be geared towards increasing awareness about the relevance of biosphere reserves in promoting sustainable development (UNESCO, 2008). It further recommended the use of biosphere reserves as tools for a) regional land use planning and coordination; b) system integration, to curtail unintended consequences of poor urban design and planning; c) sustainable urban development; and d) climate change adaptation and for building community resilience (UNESCO, 2008).

Acknowledging that actions need to take place at individual sites level, the Madrid Action Plan further encourage biosphere reserves to embrace socio-ecological and policy experimentations that are ‘SMART’¹ in their reach in order to sustain stakeholders’ enthusiasm about the biosphere reserves and improve learning.

New Roadmap for the Man and the Biosphere (MAB) Programme

The Man and the Biosphere (MAB) programme is implemented through action plans and strategies. In 2017, a New Roadmap for the MAB Programme and its network of sites was launched. It consists of three main reports including the MAB Strategy and the Lima Action Plan for 2025 and the Lima Declaration. Informed by the Rio+20 report “The Future We Want”, the 2015 Paris Climate Agreement, and the 2030 Agenda for Sustainable Development on “Transforming our World”, this new roadmap seeks to capitalise on experiences from the MAB global network of sites to position biosphere reserves as a useful tool for sustainable development. While the MAB strategy focuses on empowering people to protect the environment, the Lima Action Plan focuses on developing model sites to demonstrate sustainable development, and the Lima Declaration calls for collective action to implement the roadmap (UNESCO, 2017). It further sets out to promote synergies by combining education and information sharing towards innovative approaches to growth and development (UNESCO, 2017). It emphasises sustainable utilisation of resources, equitable distribution and building climate resilient societies and greener economies, as a way to effectively implementing the MAB Programme.

3.2.2 National laws and policies

The legal system for environmental management in South Africa is woven around the fundamental principles of environmental rights and environmental justice. The environmental right principle guarantees the basic right to food, shelter and a clean environment for all human beings, while the environmental justice principle advocates

¹ SMART stands for Specific, Measurable, Attainable and Time-bound.

the right for all people to partake in environmental decisions without discrimination. These principles are carefully embodied in the Constitution of the Republic and implemented through the various laws on environmental management in the country. These laws regulate environmental management at National, Provincial and Local government levels and operate under the guidance of the Constitution of the Republic. They apply to co-operative governance and also guide the management of biosphere reserves in the country.

Constitution of the Republic of South Africa 1996

After promulgation in 1996, the Constitution of the Republic provided what has come to be known as the environmental right. It stipulates in section 24(a) that “*everyone has the right*

- (a) to an environment that is not harmful to their health or well-being; and*
- (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –*
 - (i) prevent pollution and ecological degradation;*
 - (ii) promote conservation; and*
 - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development”.*

Sub-section 24(b) demands that the state and its branches enact legislation and other measures to give effect to the above provision. In compliance therein, specific laws on environment and biodiversity were enacted. The definition of environment as given by the Department of Environmental Affairs and Tourism (DEAT) entails a composite of conditions and influences within which any individual or thing exists, lives or develops (DEAT, 1997:4). This includes:

- the natural environment, which comprises renewable and non-renewable resources like air, water, land and all forms of life
- the social, political, cultural, economic and working environment, which denotes the factors that determine place and influence in the environment
- the natural and constructed environment which entails the spatial surroundings, landscapes and ecosystems in the environment

From the above definition, it is clear that ‘environment’ is a subject that cuts across different disciplines, which requires an integrated approach to manage. Thus, section 41 of the Constitution established the principle of co-operative government to oblige all organs of state to work together to manage the environment (DEAT, 2008:86; RSA, 1996). Despite their distinctive functions, the three spheres of government including the National, Provincial and Local governments are expected to work together. According to section 44 for example, the national government is responsible for enacting national laws and policies, formulating national development plans and setting norms and standards for public service delivery. The Provincial government is mandated by section 104 and Schedules 4 and 5 to enact Provincial laws, conduct Provincial and regional planning, including legislate about urban and rural development. Functional areas relating to the environment, including ‘environment’ and ‘nature conservation’, are listed under Schedule 4A as the concurrent legislative competency of both the National and Provincial governments. In addition, ‘housing’, ‘urban and rural development’ and ‘regional planning and development’ are also listed, although Schedule 4 makes no specific mention of informal settlements. When it comes to issues of ‘municipal planning’, ‘stormwater management’ and ‘water and sanitation’, the local government is the organ responsible as per Schedule 4B, with monitoring, support and capacity development by the other spheres of government.

Although South Africa has legislation for protecting the environment, one is quite surprised that there is no specific national law regulating biosphere reserves as a system comprising core, buffer and transition areas (Pool-Stanvliet, 2013). The reason, Pool-Stanvliet (2013) asserts, could be that the three main laws that regulate protected areas in the country including the National Environment Management Act (NEMA), the National Environmental Management: Protected Areas Act (NEM:PAA), and the National Environmental Management: Biodiversity Act (NEM:BA), do not regard biosphere reserves as a different type of protected area to warrant a separate legal status (Pool-Stanvliet, 2013:3). This could be due to the fact that the core area is mostly protected because it is either a special nature reserve, a protected environment, a nature reserve or a national park, all legally recognised by the National Environmental

Management: Protected Areas Act (Pool-Stanvliet, 2013:3). Recently, the buffer areas of biosphere reserves have also gained protection under Section 8 (a) of the amended NEM: Protected Areas Act of 2004. So far, only the transition area seems bare and the most challenging to protect because of its multiple function and land uses (DEA, 2015:21). This is why UNESCO (2008), rather than encouraging the enactment of a specific legislation, recommends stakeholder co-operation for managing the transition areas. Although findings reveal that there is no specific national law governing biosphere reserves in the country, it seems each part of the biosphere reserve somehow finds legal protection in the many existing, but fragmented, laws in the country (DEA, 2015:21).

National Environmental Management Act, 1998 (Act 107 of 1998)

At the national level, NEMA also provides some hints of a collaborative governance system, in section (2)2 stating “conservation must be people-oriented”. It goes on to explain that “*environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably*”. This seems to suggest that any conservation effort devoid of consideration for people and their needs would be inconsistent with the law. Given the fact that different organs of state are responsible for managing different components of the environment, NEMA recommends in section 46(4)c that “*conservation must be done in co-operation with other organs of state*”. Although NEMA supports the integration of environmental activities among all organs of state, which seems to support the landscape management function of biosphere reserves, it however does not explain how funding will be secured to support the integration. But one could argue that the NEMA Environmental Management and Implementation Plan (EMP) could be the tool to facilitate the integration and subsequently attract the required funds. NEMA further advocates in section 2(4) that “*environmental justice must be pursued in order to ensure that adverse environmental impacts are not unfairly distributed so as to discriminate against any person especially the vulnerable and the disadvantaged*”. It further recommends in section 2(4)(f) that provisions be made across

sectors to encourage meaningful participation of all interested and affected stakeholders in environmental decisions.

National Environmental Management: Protected Areas Act, 2003 (Act 57 of 2003)

Besides NEMA, NEM: PAA also adds a few more layers to the conservation objectives of protected areas in the country. It specifically demands in section 41(2)g that conservation be done within specific zonal configurations, where conservation objectives and development goals all have a place. Although, NEM: PAA does mirror the zonation requirement of biosphere reserves, it lacks the required mechanism to enforce the zonal functions, particularly in cases where protecting the core area could undermine development prospects in the buffer and transition areas. Although section 46 stipulates that “*no person can enter or reside in the nature reserve, and no activity can be conducted without prior written permission from the management authority of the reserve*”, and it seems to protect the core area of the biosphere reserve, it does ignore the effect that a poorly managed buffer and transition areas could have on the adequate protection of the core. Issues of access and use of the resource for livelihood purposes are also not adequately emphasised in the Act, which seem contrary to the principle of equity prescribed by NEMA. Besides, the power to monitor Provincial and Local protected areas, and conserve biodiversity in those areas, is vested in both the National Minister and the Provincial Member of the Executive Committee (MEC) as per section 43 of the Act. Evidently this can create a situation of conflict of authority and jurisdiction between the National and the Provincial levels.

National Environmental Management: Biodiversity Act, 2004 (Act 4 of 2004)

For the biodiversity conservation, NEM: BA through section 39(1)(a) recommends an integrated approach to management that involves all organs of state and concerned stakeholders. It mandates the Minister in section 9 to set norms and standards to guide biodiversity conservation, and to impose restriction on activities that may negatively impact biodiversity, particularly threatened or protected species listed in the Act. Besides its call for equitable sharing of benefits, this Act further recommends in section 7 that any application must follow NEMA’s principles of inclusivity, equitable access

and justice. Section 10 established the South African National Biodiversity Institute (SANBI) to “*monitor and report on the status of biodiversity in the country, as well as on the conservation status of all threatened or protected species and listed ecosystems and invasive species*”. This seems to suggest that SANBI is responsible for biodiversity conservation, planning and management in the country. In addition, SANBI is also responsible for managing botanical gardens, rehabilitating ecosystems, and controlling invasive species listed in the Act. According to Section 11(1)(c) SANBI may act as an advisory and consultative body to all organs of state and stakeholders in matters relevant to biodiversity conservation. However, because the national Minister or the Provincial Minister, depending on the circumstances, and by virtue of section 70(2) also has the power to amend the list of invasive species and protect biodiversity, may cause some administrative conflict with SANBI.

National Water Act, 1998 (Act 36 of 1998)

There is also the National Water Act which established catchment management agencies in section 8 to protect and control the use of water resources within specific catchment areas. To use water, one requires a license. The power to grant this license, depending on the use of the water as per Schedule 1, is vested in the Minister, or delegated to the catchment management agency. In Schedule 3 of the National Water Act, section 3(1) states that “*a catchment management agency may make rules to regulate water use*”, but one could argue that this provision appears to overlap with Schedule 4B which made water use services a local government’s function, although these services are limited to potable water supply, domestic waste water and sewage disposal systems. The fact that the national government has the ultimate power to regulate the use, allocation and re-distribution of water resources across the country may conflict with water management functions of the catchment management agency within its own boundaries.

Municipal Systems Act, 2000 (Act 32 of 2000)

Section 86(1) of this Act mandates Municipalities to develop a policy framework, and in section 26(e) to set up an Integrated Development Plan (IDP) that reflects the needs

and priorities in the Municipality. This is inter alia to guide prioritisation and development patterns in the Municipality and also inform budget allocation for implementation. As a tool for aligning resources in the Municipality, the IDP also helps Municipalities, as set out in section 25(1)(b), to align their capacities in terms of environmental and socio-economic objectives to better leverage implementation of policy decisions within the Municipality. Although the IDP was an integrated plan, in terms of section 26(e), one of the core components of an IDP was a spatial development framework (SDF) to provide “basic guidelines for a land use management system for the Municipality”. The IDP therefore also included land use planning. According to section 25(1)(e), a municipal plan must comply with both the National and Provincial plans. In sections 11, 16 and 25, this Act grants the municipal council power to develop, implement, review, and, where necessary, to amend the IDP. The only condition is that the amendment must be related to what section 34(a)(ii) describes as “*changing circumstances or emerging development issues*”. The challenge is that changes had the potential to create conflict between the Municipality and the other spheres of government, namely the Provincial and National governments over what use to make of the land. This is because Municipalities are required to develop their IDPs, taking into account their own local conditions which may not necessarily be compatible with development objectives at National and Provincial levels. Although section 27(1) promotes consultation between spheres of government and chapter 4, public participation, one cannot ignore the potential influence that powerful stakeholders could have in ways that could advance their own agenda. Section 35(1)(a) further explains that the IDP is the principal strategic planning tool that must guide land use planning and development in the Municipality. The IDP is a legally binding instrument between the Municipality, the people involved and the people to whom it applies. The challenge lies in the fact that the IDP is not funded as a whole instrument but rather financed through individual programmes from different departments.

Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)

SPLUMA, which is the umbrella legislation for land use management in South Africa, outlined in section 7 that “any land use, development or planning across all three

spheres of government must abide by the principles of 1) spatial justice, for addressing past development imbalances; 2) spatial sustainability, for promoting wise use of land and resources; 3) efficiency, for optimising the value and use lands; 4) spatial resilience, for fostering resistance of communities and livelihoods to economic and environmental shocks; and 5) good administration, for promoting coordination and compliance with established norms and standards for land use as stipulated in section 8(2)". One of the important tools to promote sustainable land development, is through the preparation of Spatial Development Frameworks (SDFs) by all three spheres of government, "informed by a long-term spatial development vision statement and plan" (Sect. 12(1)(b)). Section 12(1)(c) acknowledged the need for concessions or trade-offs in the preparation of SDFs, particularly where sector policies, plans and interests seem diametrically opposed, but the main focus is on integration of these sector plans. Section 22 (3) recommends that the municipal SDF must be consistent with the Provincial SDF, and the latter by virtue of section 15(2)(2) must also comply with the national SDF. Section 17(2)(2) reaffirms that all Provincial development plans, projects and programmes including desired and intended patterns of land use, must comply with the Provincial SDF. In the event of deviation this framework must first be amended by the relevant authority which is the Provincial executive council. Thus, setting norms and standards as in section 8 for example is one way to create a common platform for spatial planning and land use management across all sectors, although local conditions may easily influence these norms.

The land use management function of a Municipality is done in terms of its land use scheme (section 24), which in terms of section 24(2)(g) has to "give effect to municipal spatial development frameworks and integrated development plans". Section 28 and 29 reiterate that any land use change or re-zoning must follow a public participation process and consultation with relevant organs of state and the general public. Changes to the scheme regulations of a land use scheme must be authorised by the Municipal Council (section 28(4)), while other changes to the land use schemes can be changed with the approval of a Municipal Planning Tribunal (section 26(4)). Section 26(5)(a) and (c) cautions that any amendment in land use must be in the interest of the people,

and must advance the vision of the Municipality. Environmentally sensitive areas, high potential agricultural land and coastal access strips must be protected by virtue of sections 7(b)(ii) and 21(j). Section 7(a)(iv) advocates for flexibility when it comes to upgrading informal settlements and former homeland areas. In case a change in land use is likely to affect the environment, section 42(2) advocates for compliance with legal requirements, while section 54(1)(i) suggests the use of Environmental Impact Assessment (EIA) to fulfil this requirement. Section 26 seems to accommodate the land use function of the biosphere reserves by granting certain powers, particularly in subsection (1)(a) which explicitly states that “*an adopted and approved land use scheme, has the force of law, and all land owners and users of land, including a Municipality, a state-owned enterprise and organs of state within the municipal area are bound by the provisions of such a land use scheme*”.

Draft Agricultural Land Framework Bill of 2014

This bill, originally drafted in 2014 and then updated in 2016, and still in the process of further changes, has as purpose the preservation and sustainable development of agricultural land, which it deems in the national interest. It intends to repeal the Subdivision of Agricultural Land Acts no. 70 of 1970, which presently regulates the subdivision of agricultural land. This Act and associated policy suggests that protection for agricultural lands is needed in the face of rapid urbanisation, as “high value agricultural land is a scarce and non-renewable resource”, which need to be protected “for the benefit of present and future generations” (Preamble of the Bill). The Bill also focus on the need for effective planning and in the principles require all planning authorities (which include Municipalities) to designate and protect agricultural land (section 5(3)) and to draft Agricultural Sector Plans (Section 9). In order to foster an integrated approach to land use management and guide development patterns in the Municipalities, these Agricultural Sector Plans should be prepared as part of the IDPs of Municipalities (section 9(3)). At Provincial sphere, these Agricultural Sector Plans have to be integrated in the Province's growth and development strategy or Provincial development plan or framework, whichever is applicable (section 9(4)). The subdivision and rezoning agricultural lands for non-agricultural purposes would still

be possible under sections 19 and 20, but only through approval by the national Minister. The national Minister would also have to approve all Agricultural Sector Plans (Section 13(1)).

In the context of growing populations and growing population densities in certain areas, with its associated challenges, it is questioned whether this Bill, while focussed on protecting agricultural lands, might be going contrary to the land use principles of SPLUMA. In particular the spatial justice principle, which seeks to address past development imbalances, might come in conflict with efforts to protect agricultural land. But the main challenge of this Bill lies in the fact that land use functions are fragmented between the National government institutions, the Provinces, the Municipalities, and the municipal planning tribunals. ‘Agriculture’ is also a concurrent legislative function of the National and Provincial spheres of government, so this Bill might still be constitutionally challenged.

Marine Living Resources Act, 1998 (Act 18 of 1998)

This Act recognises in section 2(d) the need to utilise marine resources for economic growth and development, and in section 2(b) reiterates the importance of conserving these marine resources for the benefit of both present and future generations. Moreover, it acknowledges the need to redress historical unbalances by promoting equitable access to the resources as a way to eradicate poverty and contribute to food security. The Act gives ultimate power to the Minister to manage marine and fisheries resources, and in section 78 to “assign the administration of any provision of this Act, excluding the power to make regulations, to the executive authority of a Province”. The Constitutional right of small scale fishing communities to livelihoods is also recognised in the Act, but to exercise this right, a fishing permit is required. However, in the recent (June 2018) Supreme Court case of *Gongqose & others v Minister of Agriculture, Forestry & others*, a customary right of access to marine resources in terms of customary law, as protected by the Constitution, was successfully raised as a defense in a criminal case against community members who were caught fishing without a permit in the Dwesa-Cwebe Marine Protected Area (the MPA) in the district of Elliotdale.

Policy for the small scale fisheries sector in South Africa No. 474 of 2012

This policy recognises the right of people particularly, previously disadvantaged and marginalised people to use marine resources for food, for livelihoods needs, for jobs and for income generation, on the condition that this is done in a manner that does not deplete the resources. The Policy provides the framework for fulfilling the Constitutional right, particularly social and economic rights, of fishing communities victimised by past discriminatory systems and practices. It recognises the potential for the small scale fisheries sector to contribute towards poverty eradication and food security, and advocates for a co-management system where government and fishing communities come together to manage the marine resources. However, because unemployment and lack of social security could become major threats to the fishing activities, the Policy recommends alternative livelihoods solutions that could come through aquaculture development or value chain systems that support fishermen from catch to markets. The Policy recognises that it is crucial to involve coastal fishing communities in protecting and monitoring fishing activities because of their familiarity with local conditions, and encourages adaptive management through learning by doing (Department of Agriculture, Forestry and Fisheries, 2012).

3.2.3 Provincial laws and policies

These are regulations informed by national laws on environmental management and spatial development planning and relevant to Provincial management on environmental resources and, by extension, biosphere reserves.

Western Cape Province Biosphere Reserves Act, 2011 (Act 6 of 2011)

Given the legal vacuum created at the national level, in 2011 the Western Cape Province enacted its first Biosphere Reserves Act, to provide what Müller (2008: 95) describes as an enabling legislation for biosphere reserves in the Province. The purpose of this Act was to provide biosphere reserves with some level of legitimacy to help in implementation and in dealings with collaborative partners (Müller, 2008:95). The Act specifically:

- Facilitates the designation and management of biosphere reserves in the Province
- Regulates land use in these biosphere reserves through the compilation of framework plans, and
- Provides for matters incidental thereto.

To date, this Act is the only regulatory framework tailor-made for designation and management of biosphere reserves in the Western Cape Province, although it is currently in the process of being reviewed and incorporated into the Western Cape Biodiversity Bill. Although the Act adopts most of the key principles of co-operative governance and public participation of the Constitution and NEMA (see sections 5 & 6), it does ignore the crucial principles of equity and benefit sharing which could enhance its collaborative efforts and ensure fair and sustainable outcomes. Section 5 places the responsibility to develop a framework plan to manage the biosphere reserve on the management committee of the biosphere reserve. It reiterates in section 6(9) that “All land uses and land use plans within a biosphere reserve must comply or be consistent with the framework plan”. This seems to suggest that any land use function that is not consistent with the framework plan of the biosphere reserve may require approval through amendment of the framework plan. A provision which could face implementation challenges since biosphere reserves are dynamic systems where changes occur faster than a framework plan could be amended (Pool-Stanvliet et al., 2018:3), which is why the Act in section 6(10) supports the view that the required amendment is done either before approval or simultaneously therewith. The Act further seems to provide some funding mechanism for management but more for conservation purposes than socio-economic objectives, which seems to open the door for other implementation challenges relevant to sustainable development in the biosphere reserve (Pool-Stanvliet et al., 2018). Although no enforcement mechanism is emphasised in this Act, there is provision in section 4 and 5 for performance monitoring.

Western Cape Land Use Planning Act, 2014 (Act 3 of 2014)

According to section 2 of this Act, the Municipality has the power to regulate land use planning and development in its area of jurisdiction. Section 30 further explains “no

person may utilise or develop land unless the utilisation or land development is permitted in terms of a zoning scheme or an approval consistent with this Act and applicable by-laws". Besides, the Municipality also has the power in terms of section 2 (2)(g) to enforce compliance of its by-laws and decisions with regard to land use planning. Although section 35 gives the Municipality power to approve and rezone land within its jurisdiction, it does suggest certain conditions under which rezoning decisions should be made. This includes, but not limited to, 35(d) settlement restructuring, or 35(f) biodiversity conservation. In section 45, the Act makes ample provision for the Municipality to consult other relevant organs of state, before making any land use decision particularly in relation to (c) a rezoning of land zoned for agricultural or conservation purposes or (d) any development as determined by the municipal manager. The Act further stated that all procedural requirements with regard to this Act and other relevant legislation must abide by the SPLUMA land use planning principles set out in section 59, and all decisions must be aligned in such a way that duplication is avoided (section 67(1)).

3.2.4 Summary

Although most of these Acts promote environmental conservation one way or the other, they do differ when it comes to their scope, mandates and requirements. In terms of consistency, these Acts seem to abide by the principles of co-operative governance prescribed by the Constitution (example of NEM: PAA, 2003, section 31(b)). They also in theory seem to comply with the principles of integration recommended by NEMA (example of NEM:BA 2004 section 7). When it comes to environmental requirements in relation to activities that could negatively impact the environment, some of the Acts recommend an EIA as required by NEMA (example of SPLUMA 2013, section 54(1)). Besides, where the National Water Act issues permits or licenses for the use of water, the Protected Area Act requires an integrated management plan consistent with the IDP of the Municipality within which the protected area is located, and any other existing biodiversity management plan. When it comes to mining for example, it is the "One Environment System", recommended by NEMA and supported by other laws, including the Water Act in section 163A(2), which prevails. Ultimately, these Acts are

enacted to guide environmental decisions. However, because their fundamental principles emanate from the Constitution, which is somehow vague about the practicalities of balancing conservation and socio-economic development, these Acts are also not explicit about how much collaborative attention should be given to conservation, and how much to give socio-economic development. Moreover, because the fundamental laws are strictly conservation oriented, evidently because of their thematic scope, they provide little space for consideration of socio-economic development issues. This lack of integration between conservation and socio-economic development has become a challenge which some of these laws must now deal with, in order to boost their relevance in this present age of sustainability where conservation cannot succeed without consideration for socio-economic development.

When it comes to the land use planning aspects, one could concur with Müller (2008) that the spatial and land use planning system is sectoral and highly fragmented. Although the SPLUMA agrees in principle that land use planning and development must seek to redress past spatial and development imbalances by giving access to the land and promoting social inclusion, it does not provide resources for monitoring compliance. With regard to the incremental upgrading of informal settlements, the Act leaves this to the Provinces to handle, with no mention about how adequate resource and capacity will be made available to do the planning and implementation. Owing to its limited scope, the agricultural framework bill does not adhere to the principles of SPLUMA. Unlike the concept of biosphere reserves, which is able to practically demonstrate how different interests in the same land area can be reconciled in a core, buffer and transition zones to achieve a sustainable development. Moreover, these Acts all agree that conservation must be people-centred and benefits must be shared among all stakeholders, but how to do this, is an issue they all address differently. This adds another layer to the challenges of biosphere reserves which now have to find their way through this quagmire of legal rules, while at the same time promoting collaboration with all stakeholders. Although the lack of capacity and resources are other challenges these laws have to face, it is worth recognising that their existence helps to ensure that the environment and, by extension the biosphere reserves, are adequately protected.

Aside from the above laws, there are other frameworks such as the National Development Plan (NDP) ‘Vision 2030’ which provides a new path for development geared towards eradicating poverty and reducing inequality. The National Strategy for Sustainable Development and Action Plan (NSSD1) of 2011 - 2014, also creates a roadmap for action towards sustainability, including focusing on developing new green economic sectors. The fact that achieving sustainability will require collaboration and a shift to a New (Green) Growth Path focused on inclusive economic growth and transformation, and attuned to climate change (and variability) is another important consideration for natural resources management in the country. Further details in the regulatory framework in relation to collaboration, sustainable development, environmental management are presented in Table 3.1 on the following page.

Table 3.1: Overview of key regulatory framework for environmental management in South Africa

Scope	Framework/ legislation/policy /plans	What does it say about collaborative governance?	What does it say about the core functions of biosphere reserves (i.e. biodiversity conservation, sustainable development)	Planning tools/Instruments for collaboration
International	The 2030 Agenda for Sustainable Development: “Transforming our world” (2015)	The 2030 Agenda for Sustainable Development which was adopted in 2015 by the United Nations General Assembly, sets the global plan of action for implementing 17 goals and 169 targets towards achieving sustainable development across the globe. It proposes a global partnership for action and calls all countries, all stakeholders and all people to collaborate to implement this plan. Goal 16.7 advocates for “ <i>participatory and representative decision making at all levels</i> ” (page 25).	The Agenda recognises that eradicating poverty is the prerequisite for achieving sustainable development. It advocates for inclusive economic growth and recognises that socio-economic and environmental factors are interconnected and indivisible. It recommends an integrated and balanced approach to development, and underlines the need to take national circumstances into consideration. Goal 4 target 7 advocates for “ <i>education and learning for sustainable development and sustainable lifestyles</i> ” (page 17).	Global Partnership for Sustainable Development (page 28)
	United Nations Conference on Sustainable Development: Rio+20: “The	To achieve economic growth, while promoting environmental conservation, social equity and equal opportunity for all, the Rio+20 Report recognises the need to foster co-operation among all relevant stakeholders. Recognising the crucial roles that government, civil society organisations, community associations	To achieve sustainable development, the Rio+20 Report advocates the need to integrate the socio-economic and environmental dimensions of development into planning and decision making	Agenda 21 Johannesburg Plan of Implementation (page 44)

	Future We Want” (2012)	and ordinary citizens play in implementing sustainable development, the Rio+20 Report advocates for a broad public participation and an integrated planning and decision-making processes (pages 6,7).	processes at all levels. To achieve a just balance that will benefit both present and future generation, the Rio+20 Report advocates the need to recognise both human and nature’s rights and support green economy (page 6). It further advocates for “ <i>education, training and information sharing on sustainability at all levels as a way to strengthen capacities towards supporting implementation of the SDGs</i> ” (page 8).	
	The Seville Strategy for Biosphere Reserves (1995)	The Seville Strategy promotes the management of biosphere reserves as an arrangement between local communities and the State. It advocates the need to bring together all interested parties in a partnership approach to manage the biosphere reserves both at site and network levels. It specifically highlights the need to: “ <i>i) survey the interests of the various stakeholders and fully involve them in planning and decision-making regarding the management and use of the biosphere reserves; ii) develop and establish institutional mechanisms to manage, co-ordinate and integrate the biosphere reserve’s programmes and activities; iii)</i>	This strategy recommends to use biosphere reserves as a tool to achieve sustainable balance between biodiversity conservation, socio-economic development and cultural preservation. It further supports the use of biosphere reserves as learning sites to test, refine and demonstrate the implementation of sustainable development (page 1). It encourages education, training, research and monitoring related to conservation and	The Statutory Framework of 1995 (UNESCO 2008:9) The Madrid Action Plan (2008-2013)

		<i>establish a local consultative framework in which the biosphere reserve's economic and social stakeholders including the full range of interests are represented; and iv) ensure that the local community and the private sector participate in the planning and management of the biosphere reserves". (page 6)</i>	sustainable development in biosphere reserves (page 7).	
	New Roadmap for the Man and the Biosphere (MAB) Programme and its World Network of Biosphere Reserves: MAB Strategy (2015-2025) Lima Action Plan (2016-2025) Lima Declaration	This New Roadmap advocates the need to improve collaboration among all stakeholders involved in the management of biosphere reserves, including policymakers, scientists, local community members, and the private sector, in order to ensure sustainable development (pages 10,19). The MAB Strategy noted that <i>"sustainability science is an integrated, problem-solving approach that draws on the full range of scientific, traditional and indigenous knowledge in a transdisciplinary way to identify, understand and address present and future economic, environmental, ethical and societal challenges related to sustainable development"</i> . It reiterates that <i>"inclusive, dynamic and results-oriented collaboration and networking among stakeholders, including scientists, policymakers, local community members and the private sector are essential for achieving SDGs and related targets"</i> (page 22)	At the core of this New Roadmap is the notion of a fair balance between conservation and socio-economic development in order to achieve sustainable development. This New Roadmap recognises the vital interlinkage between the economic, social and environmental factors of development and emphasises the need to integrate these different factors into planning and decision-making processes across sectors in order to achieve sustainable development (page 11). It further advocates the need to <i>"strengthen education and learning in all agendas, programmes and activities that promote sustainable development, as a way to shape</i>	Lima Action Plan 2016–2025 (page 32)

			<i>knowledge, skills, attitudes and values towards a sustainable future” (page 28)</i>	
	Convention on Biological Diversity (CBD) 1992	The Convention on Biological Diversity (CBD) provides an overarching framework for biodiversity conservation. It advocates for sustainable use and promotes fair and equitable sharing of benefits. To achieve its objectives, the framework specifically recommends under Principle 12 “ <i>an ecosystem approach in the creation, control and management of protected areas</i> ”. In addition, Target 4 also recognises the need to “ <i>strengthen partnerships among stakeholders including government agencies, companies and industry associations, civil society organisations and enhance co-operation with indigenous and local communities in managing the protected areas</i> ”.	CBD strongly acknowledges the need to manage ecosystems in a way that promotes conservation and sustainable utilisation. This stance is well exemplified in the Aichi biodiversity targets of the Convention which advocate for mainstreaming biodiversity conservation into planning and policy decisions. Logistical support in relating to awareness creation and education about the Aichi targets is further emphasised. The Aichi targets also focus on increasing the benefits from biodiversity and ecosystem services and making sure all share in these benefits, and on improving implementation through participatory planning, capacity development and management of knowledge and innovation, including science, traditional, indigenous and local knowledge.	Strategic Plan for Biodiversity 2011-2020

National	Constitution of the Republic of South Africa, (No. 108 of 1996)	The Constitution of the Republic of South Africa, through its principles of co-operative governance and intergovernmental relations, mandates all 3 spheres of government (National, Provincial and Local) to co-operate with one another in managing the environment. It advocates for participatory democracy and the right to the environment for all. Section 41(1)(h) specifically states that “ <i>all spheres of government and all organs of state within each sphere must: (h) co-operate with one another in mutual trust and good faith by:</i> <i>(i) fostering friendly relations;</i> <i>(ii) assisting and supporting one another;</i> <i>(iii) informing one another of, and consulting one another on, matters of common interest;</i> <i>(iv) co-ordinating their actions and legislation with one another;</i> <i>(v) adhering to agreed procedures; and</i> <i>(vi) avoiding legal proceedings against one another”</i>	The Constitution under section 24 stipulates that “ <i>everyone has the right to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development”</i> . No reference is made about logistical support such as training, education or research on the environment.	Specific legislation and other measures developed through Act of Parliament - section 41(2)
	National Environmental Management Act,	NEMA serves as the overarching framework within which environmental management and implementation takes place in South Africa. In compliance with provisions of the Constitution, NEMA reiterates that “ <i>all organs of state must coordinate their</i>	This Act under section 2(3) stipulates that “ <i>development must be socially, environmentally and economically sustainable and must serve the needs of</i>	Environmental Management and Implementation Plan

	1998 (Act 107 of 1998)	<i>policies, legislations and actions, and adopt an integrated approach to manage the environment</i> ". Moreover, chapter 2(1) specifically mentions that <i>"There must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment"</i> .	<i>present and future generations</i> ". In relation to logistical functions, section 2(4)h encourages environmental awareness and education, sharing of information and experiences.	(EMP) – chapter 3 section 11(1)
	National Environmental Management: Protected Areas Act, 2003 (Act 57 of 2003)	This Act regulates the designation, management, protection and conservation of protected areas in South Africa. It advocates for co-operative governance in line with NEMA and further states that no development activity should take place in a protected area without the prior consultation and approval of the relevant authorities. It supports co-management as noted in Section 42(1) (a) which specifically states that <i>"The management authority of the protected area may enter into an agreement with another organ of state, a local community, an individual or other party for (i) the co-management of the area by the parties"</i> .	This Act through section 2(e) supports the utilisation of biodiversity and its components but in a manner that preserves the ecological integrity of the protected areas, and serves the needs of people both now and in the future. With regard to the logistical functions, section 18(2)(b) supports the need to make protected areas available primarily for scientific research or environmental monitoring.	Management Plan – section 39(3)
	The National Environmental Management: Biodiversity Act,	This Act provides the general framework for biodiversity management and conservation in South Africa. To give effect to the principles of co-operative governance prescribed by the Constitution and reiterated by NEMA, this Act enacted the South African National Biodiversity Institute (SANBI) which aims to	This Act under section 51(d) recommends a sustainable utilisation of biodiversity. Defining sustainability in Chapter 1 to mean "the use of such resource in a way and at a rate that a) would not lead to its long term	Biodiversity Management Plan section 43(1)

	2004 (Act 10 of 2004)	provide an integrated platform for coordination of biodiversity conservation and action in the country. Section 39(1)(a) specifically states that <i>“the national biodiversity framework must provide for an integrated, co-ordinated and uniform approach to biodiversity management by organs of state in all spheres of government, nongovernmental organisations, the private sector, local communities, other stakeholders and the public”</i> .	decline; b) would no disrupt its ecological integrity; and c) would ensure continued use”. Section 50(1) specifically supports the need for research and education on biodiversity conservation and sustainable utilisation particularly of indigenous biological resources.	National Biodiversity Strategy and Action Plan (NBSAP) Western Cape Biodiversity Strategy and Action Plan 2015-2025
	National Environmental Management: Integrated Coastal Management Act, 2008 (Act 24 of 2008)	This Act provides the norms, standards and policies that regulate the designation, conservation and sustainable management of coastal landscapes and seascapes in South Africa. It promotes an integrated landscape approach to regulate and manage activities that may have adverse effect on the coastal environment. It encourages stakeholder co-operation and co-management of coastal areas. Section 2(b) specifically states that <i>“the objective of this Act is to provide, within the framework of NEMA, a co-ordinated and integrated management of the coastal zone by all spheres of government in accordance with the principles of co-operative governance and participatory management”</i> .	Section 1(1)(b) mandates all interested parties to <i>“adopt a long-term perspective that takes into account the interests of future generations in inheriting coastal public property and a coastal environment characterised by healthy and productive ecosystems and economic activities that are ecologically and socially sustainable”</i> . Section 83(1)(m) supports the need for training and education on conservation and sustainable utilisation of coastal resources.	Estuarine Management Plan section 34(b)

	World Heritage Convention Act, 1999 (Act 49 of 1999)	This Act regulates the implementation of the World Heritage Convention in South Africa. It provides the framework for designation and effective management of World Heritage Sites in South Africa. Section 4(1) specifically states that “(d) <i>the participation of all interested and affected parties in the governance of cultural and natural heritage must be promoted; and (k) there must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the cultural and natural heritage</i> ”.	This Act under section 3(1) promotes the development of culturally, environmentally and economically sustainable projects in the World Heritage Sites. It encourages relevant authorities, in section 13(2)(1) to initiate steps regarding research, education, training, awareness raising and capacity building in the World Heritage Sites.	Integrated Management Plan (IMP) section 21(1)
	Spatial Planning and Land use management Act, 2013 (Act 16 of 2013)	This Act provides the framework for regulating land use planning and development in South Africa. It sets regional planning and urban and rural development as a concurrent function between national and Provincial legislation, and instructs Municipalities to also adhere to the process. Section 7(e) specifically stipulates under the principle of good administration that: (i) “ <i>all spheres of government must adopt an integrated approach to land use and land development that is guided by the spatial planning and land use management systems entrenched in this Act; (ii) all government departments must provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of Spatial Development Frameworks;</i>	This Act recommends the integration of social, economic and environmental considerations in ongoing land use management and in future plans in order to ensure that land use development serves the both present and future generations (page 3).	SDF IDP Section 5

		<i>in addition to that (v) policies, legislations and procedures must be clearly set in order to inform and empower members of the public”.</i>		
	National Water Act, 1998 (Act 30 of 1998)	This Act provides the framework for conservation, use and management of water resources in South Africa using an integrated water catchment management approach. In its preamble, the Act recognises “ <i>the need for the integrated management of all aspects of water resources and, where appropriate, the delegation of management functions to a regional or catchment level so as to enable everyone to participate</i> ”. Section 79(4)(b) specifically explains that “ <i>In performing its functions a catchment management agency must strive towards achieving co-operation and consensus from the various stakeholders and interested persons, in managing the water resources under its control; and (e) promote community participation</i> ”.	This Act noted under section 9(1) that all water resources must be protected, particularly aquatic ecosystems in a way that enhance their sustainable development and utilisation. It further noted that the ultimate aim of water resource management must be to achieve sustainable use for the benefit of all. Section 140(1) makes mention of research and development, and section 103(2)(c) refers to the need for training on water management issues.	National water resources management strategy Section 6(1)(a)
	National Development Plan (NDP) – vision for 2030	Considering the various linkages between policies on human settlements, urban planning and urban design transport, basic services, education, energy, trade, agriculture and food security, rural development, social protection, and neighbourhood	According to the NDP, all organs of state must adhere to the principles of sustainable development (page 203). They must ensure that the use of resources supports the	SDF IDP

	- National Planning Commission, (2011)	policing, this National Development Plan (NDP) advocates for a greater intersectoral and inter-ministerial collaboration as a way to achieve a sustainable future for all (page 335).	economy, enables it to remain competitive, and meet the needs of society both now and in the future. The need to use education and awareness initiatives to promote the NDP's vision is also highlighted (page 197)	
	White Paper on Environmental Management Policy - Department of Environment Affairs and Tourism (1997)	This policy mandates the Department of Environmental Affairs (DEA), which is the lead agent in environmental management in South Africa, to ensure that environmental management is integrated and coordinated across all government sectors. It further mandates DEA to consult with other relevant departments to enforce specific environmental functions (page 9). This policy specifically mentions that " <i>Inter-ministerial and inter-departmental coordination and integration of environmental management functions in all spheres of government is necessary in making and implementing this policy, and to achieve integrated and holistic environmental management</i> " (page 30).	This policy recognises the interrelatedness of effective environment management and sustainable development (page 1). It defines sustainable development to mean "the combination of social, economic and environmental factors with people at the centre of decisions" (page 4). The policy also touches on the need for research, specifically research focused on sustainable best practices (page 41)	National Environmental Strategy and Action Plan (NES&AP) - page 6
	National Climate Change Response, 2011 (White Paper) and	This policy paper acknowledges that implementing the climate response requires the institutional integration of all organs of states across all spheres of government. It mandates the National government to lead this process of coordination of functions	The main focus of this policy paper in relation to sustainable development is on education and research. As it further explained "climate change education should	IDP (page 14) Climate Change – National Adaptation Strategy (page 23)

	Climate Change Bill of 2018	(page 35). In addition, it advocates for transboundary collaboration between South Africa and its neighbouring countries with the aim to coordinate a regional response to the climate change and build resilience (page 14).	be part of the broader framework of education for sustainable development, and should equip South African citizens to re-orient society towards social, economic and ecological sustainability” (page 44)	Sector emission reduction plans (page 13)
	The New Growth Path: Framework, 2011 – Economic Development Department (together with Green Economy Accord of 2011)	The implementation of the New Growth Path requires the integration of policies and programmes at National, Provincial and Local levels. Moreover, this framework explains “work is needed to align growth and development strategies adopted by the different spheres of government and to establish knowledge sharing and collaboration across board” (page 62, 63).	The focus of this framework is more on sustainable economic growth and job creation, than on the environment, although chapter 18 outlined the main indicators of effective growth to include jobs, growth, equity and environmental outcomes. Research and development in support of the new economic development model is emphasised but not for the environment (page 42).	Developmental Policy Package – page 66
	Draft Agricultural Land Framework Bill of 2016	This Bill aims to regulate the agricultural land use and development in South Africa in an uniform and coordinated fashion. It specifically encourages in section 2(b)(i)(bb) the Provincial and Local governments to promote the use of agricultural land for farming purposes, and for any other use	This Bill promotes the preservation, use and development of agricultural resources in a way that generates socio-economic and environmental benefits for all. It specifically recognised that “sustainable	Agricultural Sector Plans (Section 9)

		compatible with their policies, legislation, IDPs, SDFs and other relevant frameworks and procedures, and further emphasizes stakeholder participation as a way to ensure transparency and accountability in relation to the use of the land (page 27).	development of agricultural land requires the integration of socio-economic and environmental factors in planning and implementation processes” (page 3).	
	Draft Policy on the preservation and development of agricultural land 2015 - Department Agriculture, Forestry, Fishery	In line with the provisions of co-operative governance, this draft Policy aims to provide a cohesive and integrated approach to the preservation and development of agricultural land in South Africa. Because agriculture is in terms of Schedule 4 (Part A) of the 1996 Constitution, an area of functional competence between National and Provincial government, this draft Policy mandates all concerned stakeholders in these various spheres to coordinate their policies and actions with regard to the development and use of agricultural lands (page 15)	This draft policy specifically reckons that “Unsustainable land use changes undermine the economic base of rural Municipalities, as agriculture is the main economic activity in most of these areas, and the long-term food security a challenge”. It recognises that agricultural land and its uses are interconnected, and adopting an integrated and sustainable approach to ensure its preservation is crucial (14).	IDP (page 18)
	National Strategy for Sustainable Development and Action Plan (NSSD 1) 2011–2014	The NSSD 1 aims to address issues of sustainability in South Africa through the effective integration of sustainability principles into policies, plans and decision-making across sectors at National, Provincial and Local levels (35). It mandates the DEA to steer the collaboration with the relevant sector departments and stakeholders including the private sector, civil society and Academia towards implementation of the strategy	This NSSD1 is a proactive strategy which regards sustainable development as a long term commitment which combines environmental protection, social equity and economic efficiency with the vision and values of the country (page 5). It touches on green economy as an innovative	NSSD Action plan (page 8)

		through an harmonised planning of programmes and implementation (page 35). It further promotes active stakeholder participation and engagement in the collaborative process and emphasises the importance of collective action (page 17).	response to sustainable growth and climate change (page 5), and further advocates for community awareness, participation and research on sustainable development (page 40)	
	Roads infrastructure policy for South Africa: policy framework (Draft 1), 2014	This policy document provides guidance for improving and effectively managing road transport networks in South Africa. It specifically recommends that “co-operative working relationships at National, Provincial and Municipal levels should be strengthened in to allow for collaborative planning and effective implementation in the rural environments and beyond” (page 6, 29). The need for more public-private partnerships between government and the private sector is further underlined (page 31)	While acknowledging that “the road transport networks contribute much towards economic and social development goals” (page 4), this policy further recognises the need to broaden this scope to include the environment in order to ensure integration and sustainable development (page 7). The need for research, innovation and best practices is emphasised (page 6).	IDP (page 29)
Provincial	Constitution of the Western Cape Province	The Constitution of Western Cape reinforces the co-operative governance imperatives enshrined in the Constitution of the Republic of South Africa and mandates all organs of state in the Province to coordinate their policies and activities in order to effectively deliver on matters of common interest to them. Section 7(a) specifically states that “ <i>the Western Cape</i>	Section 71(2) of this Act mandates the Province to ensure that the goals of environmental conservation and sustainable development are balanced for the benefit of all. No specific mention of environmental	IDP

		<i>government must act in accordance with the principles of co-operative government and intergovernmental relations set out in the national Constitution in all its dealings with the national government, the other Provincial governments and the Municipalities in the Western Cape”.</i>	education, training or research in support of implementation of this Act, is made.	
	Western Cape Biosphere Reserves Act, 2011 (Act 6 of 2011)	This Act provides specific guidance for the designation, management and protection of biosphere reserves in South Africa particularly in the Western Cape Province. It aims to ensure that development activities and decisions in the region are conducted within the boundaries of biosphere reserves and aligned with the principles of sustainable development. It fully supports the co-operative governance requirements of the Constitution and in section 3(5) it advocates for a broader representative of all relevant interested persons, institutions and communities in the management of the biosphere reserves	Section 2(c) of this Act mandates all concerned stakeholders to “ensure that any development and management of biosphere reserves is undertaken in a manner that is sustainable taking into consideration the objectives and principles of biosphere reserves”. Although it makes no specific mention of logistical support for implementing the Act	Strategic Framework Plan (SFP) Section 5(4)(d)
	Western Cape Land use planning Act, 2014 (Act 3 of 2014)	This Act regulates the land use development and planning in the Western Cape Province and its Municipalities. It sets the standards and principles for effective land use planning and development and issues guidelines for coordination and alignment of procedural requirements in the Province. Section 4	Section 53(b) of this Act specifically mandates all organs of state to ensure that any land development in the region is guided by the land use planning principles set out in this Act and also follows the	SDF Section 4(1)(2)(a)

		<p>specifically reinstates the provisions of SPLUMA including some additional measures stipulating that “<i>land use planning should be guided by the following principles of good administration:</i></p> <p><i>(a) all spheres of government should ensure an integrated approach to land use planning;</i></p> <p><i>(b) all government departments must provide their sector inputs and comply with any other statutory requirements during the preparation or amendment of Spatial Development Frameworks;</i></p> <p><i>(c) the requirements of any law relating to land development and land use must be met timeously;</i></p> <p><i>(d) the preparation and amendment of spatial plans, policy, zoning schemes and procedures for land development and land use applications, should include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them; and</i></p> <p><i>i) decision-making in all spheres of government should be guided by and give effect to statutory land use planning systems”.</i></p>	<p>principles of sustainable development enshrined in the Constitution. Although this Act does not specifically cover logistical functions, it does recommend in section 3(7)(d) some form of training to support Municipalities to perform their functions of land use planning and development.</p>	
	<p>Western Cape Provincial Spatial Development Framework, 2014</p>	<p>In compliance with the principles of co-operative governance prescribed by the Constitution, this Framework obliges that all organs of state and other role players concerned with the spatial planning and development in the Western Cape Province to co-</p>	<p>In terms of sustainability, this framework specifically invites all concerned actors to act with great stewardship and wisdom with a view to ensure that development in the</p>	<p>Provincial Spatial Development Framework (page 12)</p>

		operate, support one another, and coordinate their actions in order to ensure that public investment towards the built environment is aligned (page 100). It further advocates for development based on co-operative spatial governance and partnership among various actors (page 95)	region is environmentally sustainable and promotes social justice (page 2). An important aspect of this framework is the control of low-density sprawl of cities and towns growing into agricultural land, suggesting higher density housing as a way to promote sustainable human settlements (page 22).	
Local	Municipal Systems Act, 2000 (Act 32 of 2000)	This Act provides the framework for the development of local Municipalities and defines the structural arrangement within which Municipalities must, in an integrated manner, exercise their powers and functions. Section 3(1) specifically mentions that “ <i>Municipalities must exercise their executive and legislative authority within the constitutional system of co-operative government envisaged in section 41 of the Constitution</i> ”. To operationalise this mandate, this Act further recommends in section 3(3) that “ <i>local government must seek to:</i> <i>(a) develop common approaches for local government as a distinct sphere of government;</i> <i>(b) enhance co-operation, mutual assistance and sharing of resources among Municipalities;</i> ”	Section 4(2)(d) of this Act mandates Municipalities to ensure that municipal services are provided in an environmentally sustainable manner. It further highlights the essence of sustainable development in section 1 to include integrated social, economic, environmental, spatial, infrastructural, institutional, organisational and human resources development. Activities with regard to education, research and awareness are not emphasised	IDP (section 27)

		<p><i>(c) find solutions for problems relating to local government generally; and</i></p> <p><i>(d) facilitate compliance with the principles of co-operative government and intergovernmental relations”.</i></p>		
	Local Government: Municipal Planning and Performance Management Regulations, 2001	Although this regulation does not specifically refer to the co-operative governance arrangement prescribed by the Constitution, it does advocate in section 15(1) for a broad based community participation in the development planning and performance management of the Municipality. Further mandating the Municipality to establish a forum that will enhance this community participation in planning decisions	No mention of sustainable development. No specific reference to logistical activities in support of municipal planning	IDP (chapter 2)

Chapter 4: Kogelberg Biosphere Reserve Case Study

4.1 Introduction

This chapter presents and discusses the collaborative governance experience in the Kogelberg Biosphere Reserve (KBR). It begins with the physical description of the KBR and follows with the system context within which collaborative governance unfolds in the KBR. This is followed by the presentation of the field results and discussion of findings, specifically reporting on outcomes of collaborative governance in the KBR and analysing the dynamics that shape these outcomes. The challenges of collaboration in the KBR are also presented in order to provide a broader insight into the collaborative experience in the KBR.

4.2 Case description and background

The study area, which is known as the KBR is located in the Western Cape Province of South Africa (figure 4.1 below). It is situated about 60 km south-east of Cape Town and include a rich biodiversity supported by unique terrestrial, coastal and mountainous ecosystems (Müller, 2008:94; Pool-Stanvliet, 2010). Designated in 1998 under the UNESCO Man and the Biosphere Programme, the KBR covers a land area of approximately 103 629 hectares and a marine area of 24 500 hectares (Turpie et al., 2009).

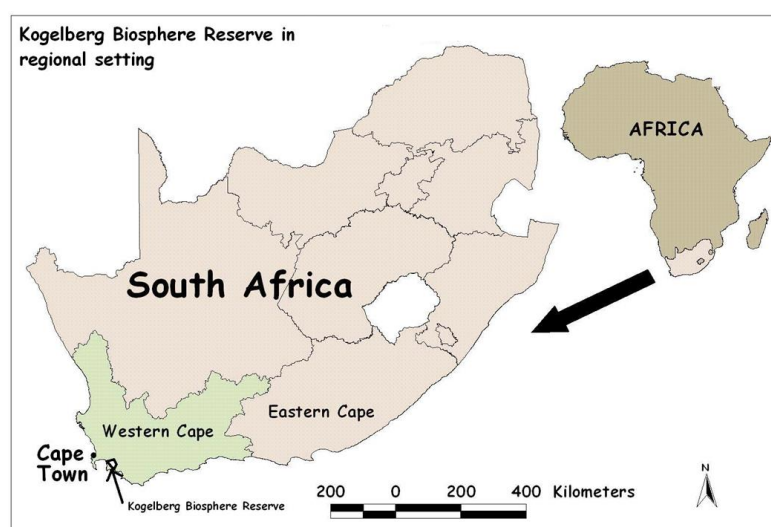


Figure 4.1: Kogelberg Biosphere Reserve in regional setting (Source: KBRC, 2009)

The KBR spreads across two local Municipalities: Overstrand and Theewaterskloof Municipalities, and a metropolitan Municipality: City of Cape Town (see figure 4.3 below). Both the Overstrand and Theewaterskloof Municipalities all fall within the Overberg district Municipality. In terms of percentage, 45,8% of the KBR is under the control of Theewaterskloof Municipality, 44,7% under Overstrand Municipality, and 9.5% under the City of Cape Town (KBRC, 2012:6).



Figure 4.2: Kogelberg Biosphere Reserve jurisdictional representation

Source: KBRC, 2009

In terms of zonation, the KBR functions through a) a core area devoted to long term biodiversity conservation and owned by the state; b) a buffer zone where only environmentally conscious activities are allowed, and ownership lies predominantly with private entities with few patches belonging to the state; and c) a transition zone which favours sustainable living and development, and holds a mix of public and private ownership.

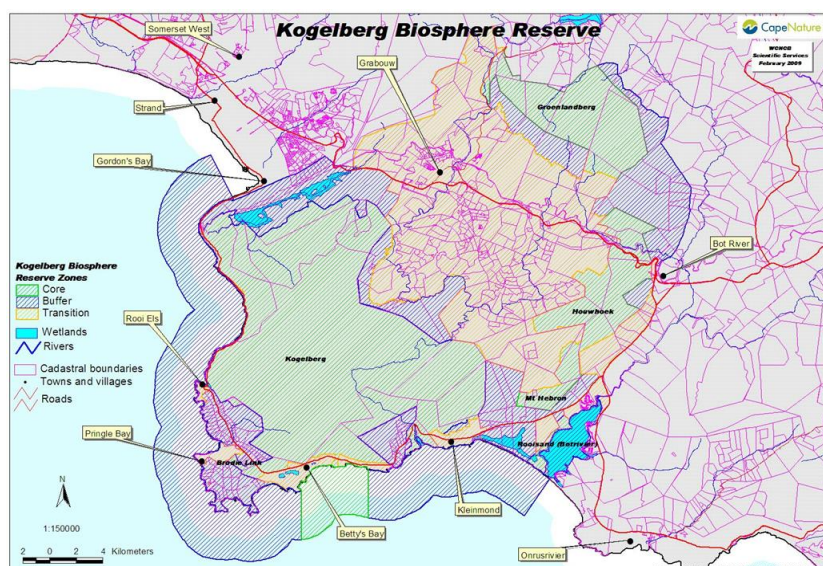


Figure 4.3: Zonation map of the KBR

Source: KBRC, 2009

In terms of historical background, the KBR was originally designated following the threat of a dam construction on the Palmiet river. However, because the local communities resisted the project on the grounds that building such a dam will destroy the ecological worth of the valley, the dam project was eventually abandoned (Rabie, 2005:83). Obviously there are rare and endemic plants species and pristine ecosystems in the Palmiet valley which could have been destroyed had the authorities gone ahead and built the dam (Pool-Stanvliet, 2010).

4.3 Presentation of results and discussion of findings

This section presents the results and findings obtained from secondary data and from the field following interaction with 25 key stakeholders² and local people in the KBR.

² The study interviewed twenty-five (25) people, aged between 20 to 70. They included 7 local community members, 4 state agency officials, 3 conservation managers, 4 private businesses, 2 farmers, 2 members of the KBR management team, 1 member of a water catchment management agency, 1 academic and former member of the KBRC advisory board, and 1 person from a Non-Governmental Organisation. For the sake of anonymity each respondent is only identified with a number in this thesis, but a full list has been provided to my thesis supervisor at the School of Public Leadership at the University.

This section therefore draws from available documentation, reports and publications on the KBR and combines this with interview results. It further provides a discussion of findings and analyses the results in light of the collaborative governance framework developed above (see table 2.4). The section is organised thematically along the line of system context, outcomes and dynamics of collaborative governance in the KBR. The challenges of collaborative governance in the KBR as well as the lessons learnt from this experience are also further emphasised.

4.3.1 System context of the Kogelberg Biosphere Reserve

The system context is the starting condition of collaboration. It creates the opportunities and challenges within which collaboration evolves (Emerson and Nabatchi, 2015). In the KBR, the system context includes the legal environment, the governance structure and the socio-economic and environmental conditions that shapes the collaborative arrangement.

Legal and policy environment

The application of laws in the KBR is done through the relevant sectoral activities in the biosphere reserve. Some of these activities relate to forest management, biodiversity conservation, agriculture development, fisheries, water management and rural development. Given the fact that there is no single overarching legislation that governs all these sectors (Pool-Stanvliet, 2013), the collaborative governance in the KBR is done through bits and pieces of relevant laws in the country. Thus, when it comes to biodiversity conservation NEMA, NEM: PAA and NEM: BA applies, and when it comes to the biosphere reserve as one entity, the Western Cape Province Biosphere Reserve Act No. 6 of 2011, applies. With regard to the marine and coastal resources management, KBR uses the Marine Living Resources Act No. 18 of 1998 coupled with the Policy for small scale fisheries sector in South Africa, which helps the KBR to adequately put into perspective the management of the fishing activities in the region, although this function is not executed directly by the KBR but rather implemented in close collaboration with the Department of Agriculture, Forestry and Fisheries and other relevant stakeholders in the region.

Governance structure, resources and stakeholders

The KBR is managed by a section 21 Company³, called the Kogelberg Biosphere Reserve Company and is steered by an Advisory Board of Directors responsible for different portfolios and supported by a technical committee (see figure 4.2 below). Rural poor community representation is somehow missing from the KBR management structure. To be able to operate, the KBR receives yearly some R 200 000 from the Provincial government. This fund is mostly used to support the operational functions of the KBR, leaving its management to having to find another sources of funding to support specific projects (KBRC, 2009). The staff of the KBRC, which is the company that runs the KBR, is 2 people. One Administrative Officer who works part-time and is paid by the Company and a Chairperson who does not receive any pay from the Company.

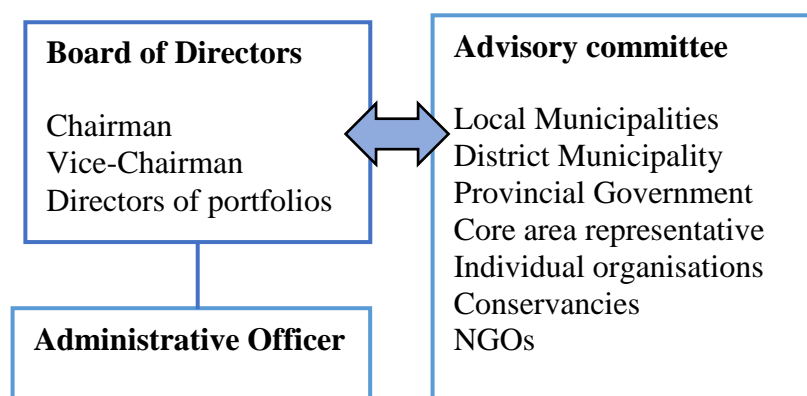


Figure 4.4: Management structure of the KBR [developed by author]

The engagement of stakeholders in the KBR is done through two main instruments: the 2006 Strategic Framework which reiterates the common vision of the biosphere and set objectives for achieving this vision, and the 2012 Framework Plan which presents the spatial plan of the KBR in relation to its conservation and sustainable development functions. At Municipal and Provincial levels these instruments are used to facilitate integration of land use functions in the KBR and mainstreamed into relevant SDF and

³ A section 21 company in South Africa is a type of a not-for-profit company.

IDP. Fire management is done through a fire management plan in which various stakeholders are also involved. There is also the Kogelberg Coast Integrated Management Plan which guides the Municipalities in managing the coastal areas. Clearing alien species and engaging in awareness activities are often done together with other stakeholders in the KBR.

Socio-economic and environmental conditions

Besides its features of rich natural vegetation and ecosystems, fertile agricultural lands, commercial plantations and recreational resorts, the KBR is also home to some 5 000 permanent residents, a number which can go up to 60 000 people during peak holiday seasons (KBRC, 2009). The economic activities in the KBR revolve around deciduous fruit farming, wine production, flower production, fruit processing, commercial plantations of pines and eco-tourism (KBRC, 2009; Stanvliet, 2014). Urban areas such as Kleinmond, Rooiels, Pringle Bay, Betty's Bay, and Grabouw, and rural settlements like Nuweberg and Lebanon are all found in the KBR (KBRC, 2012:3). According to the 2011 population census, Overstrand Municipality, which covers 44,7% of the KBR, has witnessed a staggering 3,8% population growth since 2001, as against 2,57% for the City of Cape Town and 1,54% for Theewaterskloof Municipality (see table 4.1 below). Most of this population is young and in a working age group of 15 to 64 years (Stats SA, 2011). In terms of unemployment rate, Theewaterskloof Municipality, and the City of Cape Town have witnessed some decrease while Overstrand Municipality has seen an increase of about 1.8% (Stats SA, 2011).

Table 4.1: Population growth in the Kogelberg region from 2001-2011

	Theewaterskloof		Overstrand		City of Cape Town	
Years	2001	2011	2001	2011	2001	2011
General population	93 276	108 790	55 012	80 432	2 892 243	3 740 026
Working age (15-64)	69,4%		65,6%		69,6%	
Youth unemployment	23,9%	19,8%	29,3%	31,1%	36,8%	31,9%

Source: Stats SA, 2011

Although the general population census of 2011 is yet to be officially revised, the Overberg district Municipality offers a most recent estimate in its 2018-2019 IDP, setting the total population in Overstrand Municipality at 89 110 with an unemployment rate of 19%, and the total population in Theewaterskloof Municipality to 127 640 with an unemployment rate of 11,9% (ODM, 2018:18-20). The following elaborates further on some of the key elements in the socio-economic conditions.

Population growth

With an estimated population of 56 million and still counting (Stats SA, 2017), South Africa' demography is about 80% black, 8% white, 8% coloured, and about 2% Asian. The Western Cape Province accounts for some 6 million inhabitants and this number is projected to increase by 1.6 million by 2021, mostly due to migratory influx and urbanisation (Stats SA, 2017). This influx of people from other Provinces, which is blamed on apartheid and its restrictive measures, has a significant implication for Municipalities which now have to provide more municipal services with limited budgets (National Planning Commission, 2008:104; Kingdon and Knight, 2005). According to the Western Cape State of the Environment Outlook Report, about 150 000 people have migrated to the Western Cape between 2011 and 2015 (Western Cape Province, 2018). Although the Department of Planning Monitoring and Evaluation (DPME) Report reckons that access to electricity, water, and sanitation have increased since 1994, it carefully underscored how uneven this accessibility has been for some groups of people, mostly non-whites (DPME, 2018).

Unemployment

In the past decades, labour force in South Africa has grown steady, over 4% per annum (Kindgon and Knight, 2005:5). This rapid growth in the size of the labour force was due to few factors including internal migration, increase in adult population, and a rapid growth in the size of the labour force (Kindgon and Knight, 2005; Bhorat et al., 2016). The implication is that there are about 41% unemployed black people, and 6% unemployed whites. In the rural areas, this unemployment rate is much higher, because of the segregation policies of apartheid which confined millions of black people in

homelands with poor land quality and little employment opportunities (Kindgon and Knight, 2001: 4). One of the objectives of the National Development Plan (NDP) was to reduce the rate of unemployment which stood at 24.9 % in 2012 to 14% by 2020 and further down to 6% by 2030. To do this, the NDP Report suggests a combination of leadership, increased productivity and employment, particularly for the young people. It cautions that “if South Africa fails to do this, its large youth cohort could pose a serious threat to social, political and economic stability” (National Planning Commission, 2008:98).

Poverty

“The greatest threat to sustainable development is poverty, hence eradicating poverty in all its forms and dimensions is the indispensable requirement for sustainable development” (UNGA, 2015:3). According to the ‘*Overcoming Poverty and Inequality Report*’ of the Department of Planning, Monitoring and Evaluation (DPME), about 76% of the South African population is considered poor, on the basis of high poverty persistence, above average chance of falling into poverty and non-poor but vulnerable (DPME, 2018). This is partly due to apartheid and its legacy of racial discrimination which has made “South Africa one of the most unequal countries in the world” (DPME, 2018:42). The low level of skills available in the work place coupled with the low income of the majority of the population which are unable to send their children for higher education, also contribute to the poverty rate (DPME, 2018). The DPME report also reveals that the twenty richest Municipalities in the country are found mainly in the Western Cape (DPME, 2018), which seems to suggest to the poor people living in the other Provinces, a good opportunity for job and livelihoods, and therefore a pull factor for urbanisation and migration. It is worth mentioning here that the Eastern Cape Province is one of the poorest Provinces to the KBR. Considered one of the poorest Provinces in the country, with a poverty rate of 59.1% which is way ahead of the KwaZulu-Natal and Limpopo Provinces (DPME, 2018), the Eastern Cape Province is one of those homelands where black people were contained during apartheid with poor infrastructure and poor public service delivery.

Resource depletion and biodiversity loss

According to the Millennium Ecosystem Assessment (MEA) Report, about 60% of the world's ecosystems are being lost or degraded (MEA, 2005). Associated with this loss, is a decrease in ecosystem services, loss of habitats, collapse of fishing industries and a shift in climate patterns (MEA, 2005). The biggest threats to biodiversity in the Western Cape Province, particularly in the KBR are invasive alien species, damaging fires and land use change (Turner and Baard, 2017; Western Cape Province, 2018). To this list, the Western Cape Biodiversity Strategy and Action Plan 2015-2025, adds climate change and its effects, not only on biodiversity but also on society and the economy. Thus, maintaining the ecological integrity of ecosystems is a prerequisite for economic growth and sustainable development (DEA, 2012). According to the World Wide Fund for Nature (WWF), a diverse, resilient and productive environment is crucial if one expects to win the fight against poverty and guarantee a sustainable future (WWF, 2016:6). For this to happen, public and private partnerships must be encouraged, sectoral interventions must be focused on tackling poor rural development planning and unsustainable use of resources (UNISDR, 2015). In addition to that, a more pragmatic people-centred position must also be adopted to simultaneously address conservation and sustainable development (DEA, 2012). Biodiversity conservation must be mainstreamed into planning and implementation decisions across all sectors as a contribution towards achieving the 2020 Aichi Biodiversity Targets (UN, 1992). Bringing home the point, the Western Cape Province is a water stressed zone and with the growing human population, the pressure is high on water resources in the Kogelberg region (KBR, 2009). The fact that illegal settlements on the edge of urban areas are springing up faster than they can be contained, is also having a serious impact on lands and water ecosystems in the region. Water pollution and land degradation continue to affect the environment. Illegal harvesting of marine resources and poaching is also having a serious toll on conservation in the KBR (KBR, 2009; Western Cape Province, 2018).

4.3.2 Outcomes of collaborative governance in the KBR

A key objective of this study was to assess the outcomes of collaborative governance in the KBR. From the assessment framework developed in Chapter 2, field interactions and relevant documentation and reports, the main outcomes of collaborative governance in the KBR were analysed and presented under the following themes of institutional, socio-economic and environmental outcomes.

A. Institutional outcomes

Institutions are crucial for collaborative governance. In this study, findings reveal that the KBR has somehow been able to influence institutional arrangements towards better environmental resources management in the biosphere. For example, about 60% of interviewees representing 15 out of 25 people noted some form of collaboration among key stakeholders in the KBR. This, they explained was often exhibited through joint activities, institutional engagements, communication and information sharing, among stakeholders. Although not everyone agreed on the extent to which this institutional collaboration has influenced outcomes, it was still perceived as an important determinant of collaborative outcomes in the KBR.

Collaboration and joint engagement

Although 60% of respondents noted that the KBR, to some extent, promotes collaboration, 16% representing 4 out of 25 disagreed, mainly because they believe not everyone seems involved in the process. Despite the diverging views, it appears the KBR has been able to enhance stakeholder co-operation, particularly among government and municipal stakeholders operating in the biosphere. This was also highlighted in the KBRC Periodic Review Report of 2009, and succinctly voiced out by a key nature conservation manager in the KBR:

Members [in the KBR] are made up of official people from the [local] Municipality and the district [Municipality] and big land managers, Cape Nature, farmers, utility service providers and NGOs - so at that level we can say that there is collaboration (KR1).

In relation to monitoring illegal activities within the boundaries of the biosphere, the study observed that the KBR encourages joint co-operation and engagement. It reveals how stakeholders partner with each other to collectively manage resources in the biosphere. Elaborating further, another key respondent explained how active engagement with other relevant stakeholders helps to address compliance and enforcement problems, particularly in the marine protected areas in the biosphere:

Cape Nature's focus is on catchment management, alien plants control, fire control and compliance. DAFF [Department of Agriculture Forestry and Fisheries] and the police help us to monitor compliance, with the abalone poaching for example, we do vehicle [and boat] patrol together with DAFF people and the police, we work very closely with other stakeholders in the area to monitor the poaching activities, which mostly happen in the night (KR11).

Between the KBR and private institutions, there has also been some form of collaboration in relation to managing part of the shared resources. An observation highlighted in the KBRC 2009 Periodic Review Report, and giving further support by a private business manager in the KBR:

We monitor the [Bot] lagoon from our side and report any illegal fishing to Cape Nature...because of our close co-operation with Cape Nature, we tend to involve them in all of the environmental decisions that we make (KR2).

These narratives seem to corroborate the argument by Emerson and Nabatchi (2015) who explained that collaboration provides a unique platform for engaging different stakeholders in view to achieve results that would not otherwise be achievable (Emerson and Nabatchi, 2015:721). For critics, who were about 16% of respondents, there is a lack of co-operation in the KBR. For them, there is more institutional individualism than there is collaboration. An observation, KBRC (2012) rightly ascribed to the individual mandate of institutions operating in the KBR. Supporting this claim, a key respondent commented:

...there is need for coordination of actions and interventions, because the change I have witnessed personally, is from individual people, working as individuals in their individual capacity, not as a group (KR7).

Explaining how far the KBR has drifted from its landscape management function and seems to be struggling to keep up stakeholders engagement and collaboration against the threat of water abstraction in the biosphere, a key respondent from the management of the KBR narrated:

The thing we are missing is collaboration, it's gone bad to the point where they are now drilling [for water] in some part of the biosphere...they [the KBR] stopped a dam from being built [20 years ago], if you take it from that angle, government was listening to us, now they are drilling, because people need water (KR3).

Implementation of joint activities

About 52% of respondents representing 13 out of 25 people, emphatically noted that the KBR promotes some form of joint operations and actions among stakeholders. Against the backdrop of resource limitation and the need to harness expertise and efforts to maximise results, 36% of respondents representing 9 out of 25 people, argued that it seems stakeholders in the KBR have found no other option but to work together. Explaining how this happens in practical terms, a key biodiversity conservation manager in the KBR averred:

We do most social stuff together - for example, every year there is the whale coast festival, we set our stands together, there is also an awareness run, anti-poaching run, we work together with the other people (KR11).

In addition, respondents also explained how, despite few internal criticisms, key stakeholders in the KBR were able to rise above their institutional boundaries and come together during an international awareness event to raise the visibility of the KBR:

During the Chelsea flower show for example, we were marketed very well, visitors number increased, it was very well attended. When we are put on that

big platform a lot of awareness is raised about what the biosphere is all about, what people can come and do in the biosphere, at that level we are 'one' Kogelberg Biosphere Reserve and not individual institutions (KR11).

An argument supported by a key state agency in charge of tourism who narrated that when it comes to marketing and promoting awareness events in the KBR, each stakeholder somehow plays his or her part to support the process:

We usually help market the events, even the coastal clean-ups, we usually do it together, and we usually engage the local community (KR8).

Although the KBR involves different stakeholders when it comes to awareness activities, there is very little to report on, when it comes to galvanising stakeholders to support socio-economic upliftment of rural communities in the biosphere (KBRC, 2006). An observation highlighted by Müller (2008) as a potential challenge to sustainable development in the biosphere. Explaining further, some rural community members in the KBR narrated:

Sometimes, we join when they organise cleaning activities, like recently in the Kleinmond harbour area, and that is the only time we work together...because when we start asking for jobs and lands to build our houses then you don't see anybody supporting us (KR20).

From the above observations, there seems to be an accrued value to governance when different stakeholders with different mandates and interests come together to address their common objectives (Yeboah-Assiamah et al., 2016). Although there could also be complications when the needs of critical stakeholders are neglected as witnessed among the rural communities in the KBR (Borrini-Feyerabend et al., 2013).

Communication and information sharing

This study found that the Kogelberg Biosphere Reserve (KBR), encourages some form of communication and information sharing among key stakeholders. For 48% of respondents, representing 12 out of 25 people, there is seemingly some form of deliberate attempts from key stakeholders in the KBR to improve their working

relationships. Elaborating further, a key species conservation manager in the KBR noted:

without the deliberate communication and exchange of information between the key stakeholders, collaboration would have failed a long time ago and KBR also (KR9).

There are few mechanisms in place to ensure communication flow and information sharing among stakeholders in the KBR. This includes email, social media platforms and printed materials (Müller, 2008). The aim is to facilitate exchange of information and keep stakeholders abreast with new developments and potential opportunities for collaboration in the KBR. Providing support for this narrative, a former member of the management of the KBR explained:

...minutes from the KBRC are always sent out, everybody is always informed about what is going on, what are the opportunities for training, like a tour guide training for example, to assist the communities. Posters and events announcements are posted on social media. There are quarterly newsletters that are also sent out to communicate what is happening in the Kogelberg (KR14).

The practice of information sharing in the KBR is done conscientiously with the aim to foster cross-sectoral engagement and create synergy among stakeholders. The idea, as explained by a key biodiversity conservation manager in the KBR, is to avoid what Cuong et al. (2017a) described as a situation where stakeholders' programmes unnecessarily overlap or conflict with each other:

when we do something, we make sure that it doesn't clash with what other stakeholders are doing, we all want to attract as many people as possible to any event that we organise so we normally talk to each other to know what is going on with the others (KR11).

Although 20% of respondents, representing 5 out of 25 people, criticised the methods of communication of the KBR as limited in terms of reach, it seems this method somehow helps key stakeholders in the KBR to consult with each other and coordinate their efforts to avoid duplication and inefficient use of resources (Müller, 2008).

Although key stakeholders seem informed about what's happening in the KBR, it appears ordinary people, mostly rural community members, are left out of the processes (Reed, 2008).

Institutional integration

The study shows that there is some form of institutional integration in the KBR, particularly in land use planning and development, although 20% of respondents, representing 5 out of 25 people, did not agree. For example, most of the municipal integrated development plans and spatial development frameworks in the KBR seem to have been aligned, at least on paper, with the core zonal functions of the biosphere (Rabie, 2005). Supporting this observation, a key nature conservation manager in the KBR narrated:

...if you look at the Municipality, they do the Spatial Development Framework, but the backbone is this concept of zonation [of the biosphere], they have the protected area, and a less strict area where you have the buffer and then the development zones... maybe people don't realise that they are already doing that...they have built these things exactly into their planning processes without actually realising it (KR1).

Aside from spatial and land use planning, there are also other forms of integration that brings together different stakeholders, with different mandates and different interests in managing the KBR (Pool-Stanvliet, 2010). Elaborating further, a key state agency in charge of the environment stated:

Integration is seeing through the participation of stakeholders, for example agriculture, fishery, forestry, environment, water, etc...there are different legislation that regulates these different sectors, so by agreeing to come together [because of the KBR] is proof of integration [although] there is [always] room for improvement (KR6).

According to the Constitution of the Republic, all organs of state must integrate and coordinate their actions and interventions in the environment (RSA, 1996). The general

observation is that KBR seems to have embraced this integration, at least on paper, but not so quite so in terms of practical implementation (Rabie, 2005). Confusion over the status of the KBR as a protected area, a biosphere reserve or a nature reserve, and a lack of functional integration, was remarked on by other respondents:

...there is actually a lack of integration between the various entities, because each institution has its own function, so sometimes, you have people who want to visit the nature reserve, and when they get directed to Cape Nature, they seem confused because for them KNR [Kogelberg Nature Reserve], KBRC, KBR and Cape Nature are all one and the same thing (KR8).

In light of the above findings, a brief summary of the respondent perception about whether the KBR provides the platform for enhanced institutional co-operation, better implementation of joint activities, collaboration and joint engagement, communication and information sharing, is presented in Figure 4.5 below.

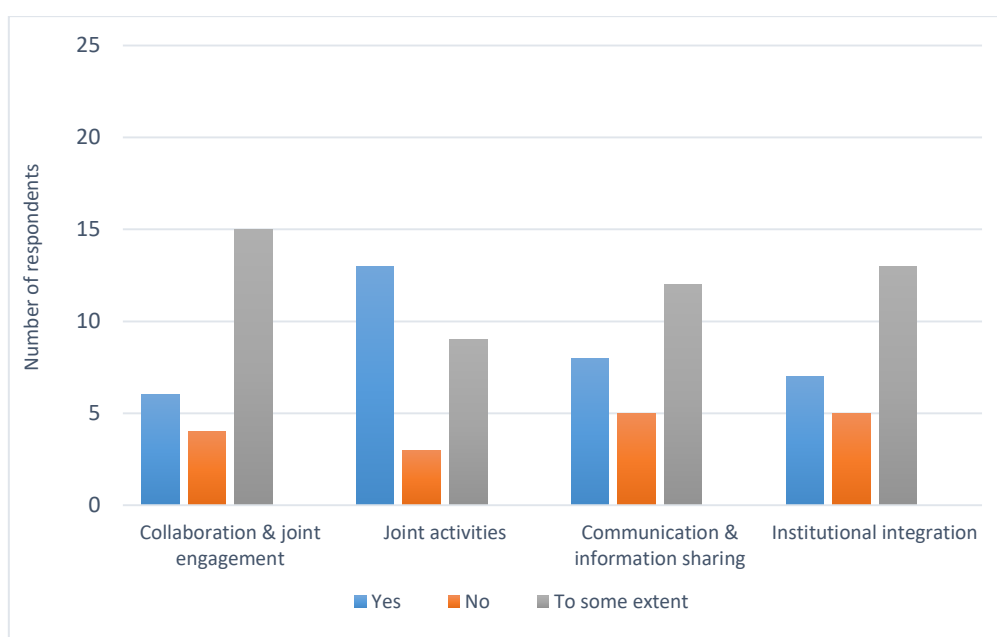


Figure 4.5: Perception in relation to institutional co-operation

From the above, it appears that there is collaboration in the KBR, at least to some extent, although, some respondents think there is more working in silos than working together

among stakeholders in the KBR. In fact, one respondent added that some public lands in the KBR are being occupied for rural settlements without prior stakeholder consultation, and some drilling activities are also taking place in a somewhat unilateral manner in some parts of the biosphere, proving the lack of collaboration.

B. Socio-economic outcomes

One of the key functions of the biosphere reserve is to foster socio-economic development. This study found that the KBR promotes some form of socio-economic development in relation to livelihood improvement, job creation and local economic development. At least 48% of respondents, to some extent, attribute some improvements in livelihoods to opportunities in the KBR, although this observation is not unanimously supported by all stakeholders.

Livelihoods development

The study found some form of livelihood improvement in the KBR, particularly among the local fishermen communities. For example, collaboration between the Kogelberg marine working group, World Wide Fund for Nature (WWF-SA) and the local fishermen, has increased benefits fishermen made from fishing in the KBR. Explaining how the introduction of a new technology has changed the way fishermen do business in the KBR, a key respondent from a non-governmental organisation operating in the KBR narrated:

...they now have an abalobi apps, before fishermen used to catch and sell to a middleman who then sells to Cape Town and other places. The result was that fishermen benefited very little from their catch. Now with the apps, fishermen can trade directly with the buyers, this eliminates the middleman and the fishermen get to gain more from their sales (KR5).

Report from the local fishermen suggests that the app has been valuable, in the sense that, it has helped to keep record of catch and transactions and use that information for other purposes, which is something that was challenging in the past:

...previously if they [fishermen] want loan to repair their boat or nets, it was difficult because they don't have a pay slip and the bank cannot give them money, but now with this app, they have records of their business and income, to show the bank as proof of work (KR19).

The general observation is that most of the livelihood projects or initiatives in the KBR are small scale projects with very little or no incentives. The majority of respondents from the communities argue that most of these livelihoods projects lack mentors, or the money appeal, or even the genuine commitment from project proponents to implement the projects, making them unattractive to people. An observation supported by a vegetable farmer in the KBR who noted:

The biosphere has helped me to set up this vegetable garden - they gave me this place, the water tank, the seeds and the equipment - but the thing doesn't bring money fast enough...the people I started with, they have all left (KR16).

Besides, the small scale nature of livelihood initiatives in the KBR, there is also the challenge of long term funding for community projects that the KBR is confronted with (Pool-Stanvliet, 2010). Supporting this observation, a key local government official commented:

Most of the projects involving the local communities initiated by KBR are highly dependent on outside sources of funding not making it very sustainable (KR13).

There are large rural communities in the KBR but so far livelihoods interventions have rather taken the form of uncoordinated pocket of small interventions which have been called “token stuff” in comparison to the actual demands and needs in the communities (KBRC, 2012). Providing support for this argument, a private business operating in the KBR noted:

...so far KBRC is not making any relevant contribution to the majority of the people in the local communities. Looking at the demography of the biosphere you've got about 90% poor black people unemployed or on contracts, the biosphere must not just benefit the few 10%, which is what it does (KR21).

About 20% of respondents, mostly from the rural communities, refute this argument that the KBR has somehow improved their livelihoods. One of them comments:

...I can't see the 80% of this community attributing an improvement in their life to the biosphere reserve...so whether the biosphere has improved the life of the people in this area, that I cannot say (KR15).

It is worth noting that one of the objectives of the biosphere is to improve the lives of people living within its boundaries, not only through environmental benefits that the biosphere may offer, but also through socio-economic opportunities that it can create (UNESCO, 2017). Livelihoods mean jobs, employment, security and well-being (Reed and Massie, 2013). However, because most of these livelihood opportunities in the KBR are tourism-related, it does little in addressing actual livelihood needs of communities.

Job creation and opportunities

Although the majority of respondents, mostly rural community members, did not agree, the study found that the KBR has, to some extent, created a conducive environment for job creation in the region. About 40% of respondents, representing 10 out of 25 people, noted that there are big farms, hotels and tourism-related businesses in the KBR that, to some extent, create jobs for the local communities. Providing support for this observation, a key respondent from the water catchment management agency in the KBR explained:

When the biosphere was designated [some twenty years ago], there were about 30 000 people, now it is about 70 000 people. There is a large number of people that now live here because there is work around here, and this is because of the farms and the fruit industry (KR10).

The above narrative seems to corroborate findings by the Municipal Economic Review and Outlook (MERO) Report which acknowledged that “the economic activities within the Theewaterskloof (45.9 per cent), and the Overstrand (28.7 per cent) Municipalities are the main contributors towards employment in the Overberg district Municipality

(OBD); together these two areas contribute 74.6 per cent of the OBD employment opportunities” (MERO, 2017:236). Although only 32% of respondents, representing 8 out of 25 people, emphatically supported the argument that KBR provides jobs, particularly tourism-related and farm jobs, they also underlined how the demand for jobs outweighed the supply. Explaining further, a key local business owner in the KBR narrated:

...most of our staff come from the surrounding communities, the number of people we employ may not seem big but you've got people coming from other areas as well and there is no job for everybody (KR21).

The above narrative is given further support by the Municipal Economic Review and Outlook (MERO) Report, which acknowledged that “although the Overberg district Municipality has shown an increase in employment opportunities, the unemployment rate has increased year-on-year since 2010, indicating that the number of job seekers are increasing faster than the jobs are created in the District” (Western Cape Province, 2017:238). Although it appears that there are job opportunities in the KBR, it is important to emphasise that most of these jobs are seasonal or temporary, with few long term prospects, making them unsustainable (KBRC, 2012). Elaborating further, a rural community member narrated:

For me I don't see how the biosphere is helping us get to get good jobs because I still don't have any job, some time you go to work on the farms but it is only when they are harvesting, but after the harvest it is difficult to find a job (KR18).

The above narrative seems to corroborate what the Municipal Economic Review and Outlook (MERO) Report expressed when it noted “employment needs within the agriculture, fisheries and forestry sector are volatile...the sector is characterised by seasonal (temporary) labour needs which make job creation in some years unsustainable” (MERO, 2017:116).

Local economic development

This study also found that despite some opposing views, the KBR fosters local economic development. About 80% of respondents, representing 20 out of 25 people, believe the KBR is a major tourism destination, and together with the agricultural sector, they represent the leading economic drivers in the Kogelberg region. Whale watching and fynbos festivals are some of the famous tourism attractions in the biosphere (KBRC, 2009). Supporting this observation, a key state agency in charge of tourism commented:

...yes it is average improvement [for the local economy], especially, when visitors come during the whale coast festivals, you've got hotels that accommodate visitors, biodiversity areas that people want to visit, you've got local people who sell crafts during these whale coast festivals, and you've also got the Municipalities which get tax from the businesses (KR8).

To buttress this point, records show that from July 2010 to June 2011, about 50 051 people visited the botanical garden, 67 548 visited the Stony Point penguin sanctuary, and 3 843 people visited the Kogelberg Nature Reserve (KBRC, 2012:54). This represents a considerable boost to the tourism industry in the KBR and also to the local economy, particularly in terms of tax and revenue for the Municipalities. The agricultural sector is another important booster for the local economy, particularly within the Theewaterskloof Municipality which is home to most of the fruit farms in the KBR (KBRC, 2012:31). Supporting this observation, a fruit farmer in the KBR narrated:

...in my view, the sector that generates most income, most turnover in this region is the agricultural sector, speaking of jobs, incomes and tax revenues (KR17).

This narrative is corroborated by the Municipal Economic Review and Outlook (MERO) Report which recognised in 2015 “Theewaterskloof and Overstrand Municipalities as the dominant local economies in the District, contributing 72.1% of the Overberg district Municipality’ Gross Domestic Product” (MERO, 2017:231).

Despite the interesting economic outlook, about 16% of respondents are convinced that the KBR can still do better, if the greenies who are up against development in the biosphere were more lenient towards development opportunities in the biosphere. Supporting this observation, a former member of the management of the KBR remarked:

...the biosphere is sometimes up against big developments which is such an economic injection into the region, this is why I think they [KBR and developers] all have to find a way to meet each other half way, because the essence of the biosphere is sustainable development (KR14).

Although people seem to argue that the biosphere is up against development in general, the KBRC (2012) argue that the approach is rather to prevent the development of more luxurious residential properties inside the rural landscape, but not on the urban edges (KBRC, 2012:32). For Stoll-Kleemann and O'Riordan (2002), the success or failure of collaboration is also dependent on prevailing socio-economic realities, hence the need to examine this challenge mentioned above and establish its implication for the collaborative process (Stoll-Kleemann and O'Riordan, 2002).

Tourism development

The study observed that the KBR has a significant impact on tourism in the region. About 92% of respondents, representing 23 out of 25 people, noted that the KBR status has attracted thousands of domestic and international tourists to the region, and has significantly influenced the way businesses are conducted in the area (KBRC, 2009). Providing support for this argument, a key state agency in charge of tourism, and a private business operating in the KBR, had this to say:

...the type of visitors we get now, we didn't use to get them, they [visitors] want to see the leopards, the birds, the fynbos which are very characteristic of the KBR...if we didn't have the biosphere, especially the status, we may not be able to get the international visitors that we now get (KR8).

...yes definitely, they have an impact on tourism-linked businesses, for example people come to play golf and visit the hotels in the biosphere, so yes, the KBR has an impact on businesses in the tourism industry (KR2).

The important role that tourism plays in the KBR region is acknowledged. In fact, the Municipal Economic Review and Outlook (MERO) Report, noted that in 2015, the Overberg district Municipality, which encompasses the two local Municipalities in the KBR, attracted 26 % of tourists to the Western Cape Province, thus contributing significantly to the growth of the local economy (Western Cape Province, 2017:267).

Green practices

The study noted that the existence of the KBR has influenced behaviours and business practices in the region. In fact, 72% of respondents, representing 18 out of 25 people, noted how stakeholders in the KBR have managed to make considerable adjustments in their lifestyles, and some of them, in the way they do business in the KBR in order to conform to greener practices. Explaining how becoming an environmentally friendly business has earned them an international eco-accreditation, a private business operating in the KBR noted:

...we got this accreditation [ISO 14001] and every year we renew it, following some inspection and audit to make sure that we comply with the environmental stuff with regard to good practices (KR2).

The influence that KBR exerts towards greener practices in the biosphere is felt across the board (KBRC, 2009) and even in private conservancies, which have also joined in efforts to promote environmentally sound practices in the KBR:

...in some areas there are recycling being done, some social upliftment being done within the biosphere, lots of conservation going on not only from Cape Nature official sites but also from individual organisations like in Kleinmond where they have walking trails, and they also do invasive plant clearing (KR21).

The existence of eco-cabins inside the Kogelberg Nature reserve is another strong indication of how well the KBR has embraced greener practices (KBRC, 2009), and is

sharing the message with the many visitors that patronise the biosphere. The green architecture were acknowledged in the KBRC (2012) as potential good management practices with low density impacts on the biosphere:

...there are few eco-cabins inside the nature reserve [core area], they are built from woods and some environmentally friendly materials, there are only few of them so, people try to book well in advance to enjoy the unique nature experience (KR8).

As to whether the other sectors in the KBR, particularly the agricultural sector, is also benefitting from the existence of the biosphere, a fruit farmer in the KBR explained:

Farmers have to subscribe to certain environmental standards set by the [international] markets, for example they [international markets] don't want to know that we have used chemical pesticides or paid labour below a certain wage, so in a way, there is quite a few factors from this practices that have benefited the environment (KR17).

Although most farmers argue that the KBR has had very little impact on farming in the area, because there are platform and measures, other than the KBR, which control things on the farms (KBRC, 2009), the district Municipality argue that the “use and benefit of the KBR as part of the Fair Trade Brand and other similar associations” has somehow stimulated greener practices on farms in the Kogelberg region. For the KBRC (2009), this practice is associated with the export accreditation requirements that farmers in the KBR have to abide by. Corroborating this observation, Cuong et al. (2017b) noted that the existence of a biosphere always forces people to think and act in a certain manner even if they are aware of this or not (Cuong et al., 2017b).

Awareness and public participation

The study found that collaborative efforts have facilitated implementation of awareness programmes and initiatives in the KBR. With the threat of overfishing and intense poaching of marine resources (Pool-Stanvliet, 2010), the Kogelberg marine working group, in collaboration with WWF-SA and other partners, initiated a project called the ‘moving sushi’. The project, which uses a ‘Baited Remote Underwater Video Systems

(BRUVS) to conduct scientific research, was initiated to give local fishermen a live experience about fishing and life under the waters:

...the physical involvement has had a positive impact on the fishermen and how they now do their business, for them the research was an opportunity to be involved in real life scientific monitoring of fish stock, and for them to see what is going on under the waters has enhanced their understanding about why these places are important and why they should be protected (KR4).

About 48% of respondents, representing 12 out of 25 people, think the KBR has managed to raise awareness among relevant stakeholders about the human-environment relationship, and how this relationship can be managed in a way that accommodate all interests in the biosphere, without compromising the environment (KBRC, 2009). Elaborating further, a key nature conservation manager in the KBR narrated:

...it [the biosphere] has had the benefit of making people aware of the cross-pollination between different interests, people are much more aware that the human livelihood is dependent on the natural environment and how you manage that, and in the KBR this has been an improvement (KR1).

The sensitisation initiatives in the KBR seem to have also increased awareness among local communities, particularly as it relates to conservation of wetland ecosystems and catchments areas in the KBR (KBRC, 2009):

...all the education stuff that the biosphere has done over the year has been a great benefit in making people especially the local people aware that you can't pollute the river because it has a direct impact on the water quality, you can't let raw sewage run into the river (KR14).

The awareness initiatives were not only directed at key stakeholders in the KBR (KBRC, 2009) but also targeted school children and young pupils in the KBR. The aim was to inculcate recycling and stewardship attitudes into these children, so they can take the sustainability message forward. Explaining how successful one such

awareness initiative has been, a key respondent from a local community organisation in the KBR narrated:

...one of the successful project was, they set up a swap shop, so they've got school children to pick up rubbish and then take the bag of rubbish to the swap shop and swap it for coins, and then they can use the coins to buy stuff like stationeries, clothing and food from the swap shop...they also have them paint rubbish bins in beautiful colours to raise awareness about littering, and also planting of indigenous trees, this had a positive effect on the towns (KR15).

Despite the above observations, it seems the awareness initiatives have not reached everyone and stirred the desired transformation (KBRC, 2006). About 24% of respondents, representing 6 out of 25 people, still waiver about the actual value of the KBR for the local community. Explaining how some people in the biosphere think the KBR is just another business-as-usual entity, a key respondent from the private sector noted:

The biosphere thing is not well understood by both rich and poor, the rich farmers, they have their farm and it doesn't matter if the place is a biosphere reserve; and the poor people, they are hungry and they don't care if the place is a biosphere reserve (KR7).

There were remarks from some respondents that the biosphere is implemented like a protected area, in the sense that it seems strictly conservation oriented (KBRC, 2012). Expressing a somewhat sarcastic observation about the degree of lack of understanding about the biosphere and what it entails in terms of its functions and boundaries, a local community member commented:

People here know that this biosphere thing exist but they don't know where exactly it is and where it is not, for us it is like everywhere is the biosphere, you cannot live anywhere, for me this doesn't make any sense (KR18).

For the majority of the rural community, “the place is just grass and flowers” and the fact that people are not allowed to occupy the “empty” places is something they find difficult to understand (KBRC, 2006). This is why Cuong et al. (2017a) suggests active

communication and deliberate engagement of critical stakeholders as a way to clarify things and win support from the local people (Cuong et al., 2017a). Moreover, the fact that the basic needs for food, water and shelter, particularly among the rural poor communities, are still so high, makes the biosphere message of ‘awareness’, as it is currently packaged and presented, unattractive to rural communities (KBRC, 2012). The consequence is that the KBR is struggling to secure some form of buy-in from the rural communities. The fact that the rural communities see no tangible benefit from the KBR is another major challenge (KBRC, 2006). This observation corroborates the views of Yeboah-Assiamah et al. (2016), who argue that stakeholders, particularly local people, are often reluctant to engage in collaboration if there is no benefit (Yeboah-Assiamah et al., 2016:27). From the above narratives, the summary of respondents’ perception about whether the KBR provides the enabling environment for socio-economic development in relation to livelihoods improvement, job creation and local economic development, is presented in figure 4.6 below.

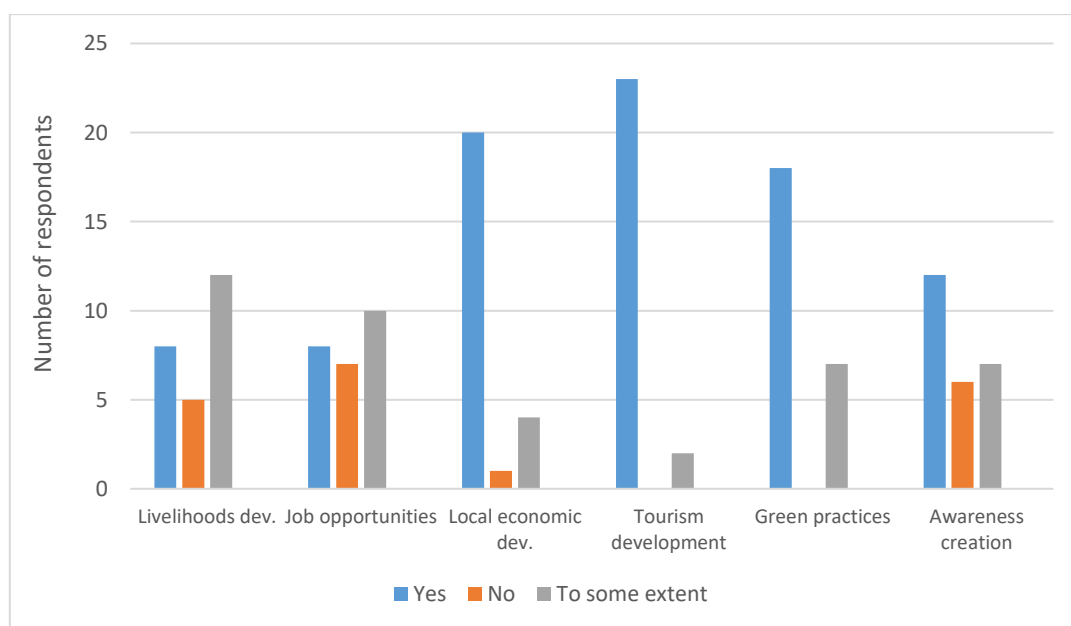


Figure 4.6: Perception in relation socio-economic development

Given the high need and expectations for jobs and livelihoods in the KBR, it is no surprise that a large number of respondents, particularly from the rural communities,

think the KBR does not provide a favorable background for jobs creation and livelihoods development in the region. However, when it comes to the impact of the KBR on the local economy and on tourism development, the reactions are more positive.

C. Environmental outcomes

Central to the concept of a biosphere reserve is the notion of biodiversity conservation (KBRC, 2012). About 80% of respondents, representing 20 out of 25 people, noted that the KBR, to some extent, has improved conservation and ecosystem management in the area. For example, the degree to which habitats are better protected, environmental resources are better utilised and environmental problems somehow managed, is indicative of the impact of the KBR, although some acknowledged that there is room for improvement for sustainability

Habitat preservation

The study found that the KBR helps to preserve habitats for animal species in the region (KBRC, 2009). In fact, the existence of the biosphere has contributed to safeguarding the natural habitats of a small number of endemic species in the Kogelberg area. This observation is supported by a key species conservation manager, and a private business manager in the KBR:

Here you've got the colony of penguins and waterbirds, most of them live and breed in this area because it is safe for their chicks and also because they are protected from their predators (KR9).

There are very sensitive wetlands and a little frog species that breed along the coast, the project developers [private entities] tried to incorporate this into their open space layout so there will be no negative impact on the frogs (KR2).

This narrative was further given support by a key state agency in charge of tourism who explained how the biosphere has preserved habitats for species which would have been lost to mounting anthropogenic pressures in the region:

...if we didn't have the biosphere, especially the status, quite a few vegetation and animals would have been destroyed because of the housing problem, people come here to see the fynbos, the leopards, the waterbirds, the baboons, the penguins and occasionally the whales (KR8).

The importance of the biosphere for habitats conservation in the face of development pressures in the region was underscored in the 2009 Periodic Review Report of the KBR, and further reiterated in the 2012 Strategic Framework.

Ecosystem management

Findings reveal that the KBR has improved ecosystem management in the Kogelberg region. In fact, about 88% of respondents, representing 22 out of 25 people, noted the positive impact of the KBR on the integrity of ecosystems in the region. Explaining how some conservation mechanisms, like the stewardship programmes, have enhanced the conservation functions of the KBR (KBRC, 2009), a key respondent narrated:

Taking, WWF-SA for example, they buy private lands and give them to Cape Nature for conservation, the good thing is that, this has now increased the area of land that is set aside for conservation in the Kogelberg region (KR11).

Explaining how the existence of the biosphere has strengthened conservation initiatives in the KBR, to the extent that more sites are being designated as protected areas (KBRC, 2009), a key private business operating in the KBR stated:

The Bot River lagoon is recently declared a Ramsar site; there is a high concentration of water birds in the site. For us, this mean that we have to make sure that we manage it properly; we have to comply with everything (KR2)

The majority of respondents seemed to recognise the critical role that the biosphere played in the past and continue to play in safeguarding the fragile ecosystems in the Kogelberg region (KBRC, 2012). Narrating this story, a former member of the management of the KBR averred:

I think KBR has been able to protect some of the important ecosystems in the area because if we didn't have the biosphere, by now we would have had a big dam on the palmiet river and this whole floral valley would have also disappeared already (KR14).

The majority of respondents acknowledged how the existence of the biosphere has encouraged private institutions, community people and big farms in the KBR to engage in clearing of invasive vegetation, which infest the landscape and negatively degrade the ecosystems (KBRC, 2006). Supporting this observation, a key respondent from the water catchment management agency in the KBR commented:

There is frequent alien clearing in the area, especially now that we have water problem in the Western Cape, you've got farmers who do this [clearing] on their own farms, and you've also got the Municipalities and private people involved (KR10).

The above narratives seem to suggest that the existence of the biosphere has somehow influenced conservation efforts in the Kogelberg region (KBRC, 2009). Despite the positive remarks however, a few critics (in the form of 4% of respondents) have also emerged. Explaining how the lack of resources and capacity have also affected conservation efforts in the biosphere, a key respondent from the management of the KBR explained:

... because the Municipality doesn't have the capacity and the resources to do the alien clearing, those who get paid to do it, are not well trained on how to do it, so they cut down the alien trees but after the first few rains, you see the trunks grow back again (KR4).

For other respondents (about 8% of the total), the conservation measures deployed in the KBR have not been effective in halting, nor reducing, the illegal poaching of the marine resources in the KBR. An observation which seems to support the KBRC (2009) Report on poaching activities and illegal harvesting of marine resources is on the KBR. Providing further support for this observation, a key nature conservation manager noted:

The abalone poaching has gone from bad to worse. In the past, the abalones were as big as the palm of my hand, but now they are very small. The Lobsters are also becoming scarce because of overfishing (KR1).

Land use development

The study found that there has been a significant increase in changed land use practices in the KBR, mostly related to land conversion for business development and residential purposes (Western Cape Province, 2018). However, whether this has improved land use management in the KBR or not, is yet to be established. About 52% of respondents, representing 13 out of 25 people, noted an increase in land use for infrastructure, roads and residential properties in the biosphere. Commenting on this, a private business operating in the KBR remarked:

Now there are more roads in the KBR than before, there are all sort of new roads, walking trails, bicycle trails, hiking trails even deep inside the mountain areas (KR21).

Land cover patterns in the KBR have also changed (KBRC, 2009), for example, land for agriculture and forest lands are constantly being fragmented and transformed to serve the rising demands for houses in the region (Western Cape Province, 2018).

The farm lands have kind of remained constant but there has been lots of on-farm accommodations mostly for farm workers and their families but the challenge is that there seems to be no limit (KR17).

Land ownership is another complex problem that influences land use patterns in the KBR (KBRC, 2006). For example, some people owns the land in the KBR because they bought it, others feel they are entitled to the land because they were born there, while yet others claim they have title deeds or customary rights to the land. The consequence is obviously the inequitable access and unsustainable development of the land in the KBR (KBRC, 2012; Western Cape Province, 2018). Providing support for this argument, a rural community member narrated:

You've got private property [development] happening everywhere in the biosphere, you've got hotels, shops and restaurants for tourists but when we ask for houses they say there is no land, therefore our people also go and put their shacks anywhere that is open in this area (KR20).

The biosphere reserve, by virtue of its strategic function, is expected to guide land use decisions in the Kogelberg region (KBRC, 2012; Pool-Stanvliet, 2014). The aim is to ensure that any development taking place within the boundaries of the biosphere is aligned with its zonal functions, and also follows existing land use development principles (KBRC, 2012). Evidently, this seems to be a major problem in some parts of the KBR, as remarked by a key respondent from a local community organisation in the KBR:

The biosphere should have been at the forefront of facilitating where people need to stay, where development needs to happen and this should apply to everybody in the community...because you cannot allow some group of people to build expensive private houses and cottages inside the biosphere and acquire properties inside the biosphere, but tell other group of people they cannot put their shacks there (KR15).

This argument was further supported by about 16% of respondents - mostly rural community members, who observed that there are some form of discrimination and unfairness in the way land is accessed or developed in the KBR. Although this observation is not captured in the 2009 Periodic Review Report of the KBR, a rural community member averred:

I don't think the Kogelberg apply the same rules for everybody in this area, because how can you tell me there is no land and then you allow other people to build on the land (KR18).

Owing to the above narratives, it seems crucial that the land reform debate be brought back to the discussion table and also be genuinely representative, in order to guarantee that the KBR achieves its core objectives of securing a sustainable future for all (Pool-Stanvliet, 2014).

Environmental issues resolution

Obviously there are land related issues that the KBR has not been entirely able to address (KBRC, 2006). Taking the case of informal settlements for example, where there is little or no access to sanitation or refuse removal services, illegal dumping of waste has become a major threat to the environment (Western Cape Province, 2018). About 40% of respondents, representing 10 out of 25 people, think the KBR has not been effective in solving environmental problems:

Pollution essentially comes from the urban areas, particularly in the informal settlements where you've got [domestic] waste and raw sewerage going directly into the river (KR10).

Explaining how the legacy of spatial segregation during apartheid has fuelled the migration of rural population towards urban areas in search of jobs and livelihoods, and how this has led to rampant informal settlements that are severely degrading the environment (National Planning Commission, 2008; Western Cape Province, 2018), a rural community member remarked:

You've got people here who have applied for houses since [the year] 2000, some of these people have never received any house so they are still in the shacks, now they are many people living here...this squatter camp used to be grass but now see it is all grey, everywhere is occupied with shacks (KR19).

This observation was further underscored by Pool-Stanvliet (2010) and given further support by a key member of the management of the KBR who narrated:

Squatter camp is having the biggest negative impact on conservation efforts in the reserve, there was this little and very sensitive frog which used to breed in some part of the coastal areas, but because of the pollution problems, the frogs have disappeared from along that coast (KR4).

Apart from climate hazards and veld fires, which occur when temperatures are high and vegetation is dry, there are also some human-made activities which threaten the

integrity of the environment in the KBR (Western Cape Province, 2018), as one respondent stated:

Some people intentionally or accidentally start fire and leave it in the open, others go do picnic or braai in the area and do not put out the fire, and others also smoke and leave the cigarette butt behind and this frequently sets fire to the forest lands in the reserve (KR18).

From the above narratives, the summary of respondents' perception about whether the KBR helps to promote better environmental conservation in relation to habitat preservation, ecosystem management, land use development and environmental problems resolution, is presented in figure 4.7 below.

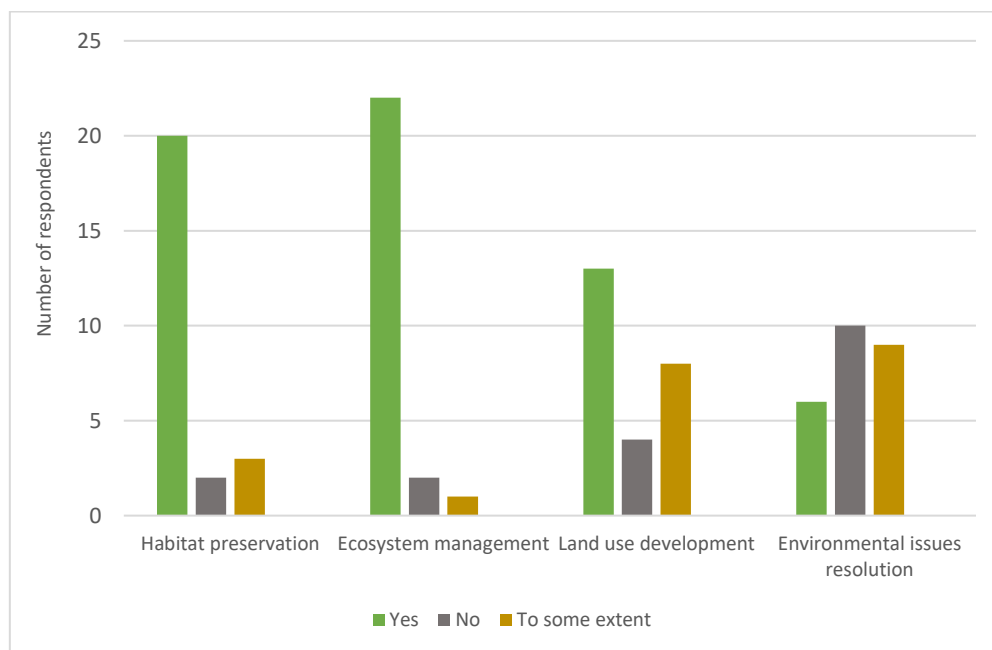


Figure 4.7: Perception in relation to environmental protection

With regard to the impact of the KBR on the environment, the majority of respondents agree that the KBR plays a vital role in the integrity of resources in the area. For some of the respondents this could be associated to the fact that the biosphere is somehow managed like a protected area, for the benefit of stakeholders whose core businesses

are dependent on the natural environment in the KBR. When it comes to the question of the capacity of the KBR to solve or mitigate environmental problems, there were mixed reactions.

Summary

The above findings about the outcomes of collaboration in the KBR provide a glimpse into the complex realities and interplay of different factors of collaboration in the KBR. The above findings about the outcomes of collaboration provide a glimpse into the complex realities of collaborative governance in the KBR. In general, there were instances where collaboration produced positive outcomes, for example for biodiversity conservation and local economic development in the KBR (KBRC, 2006), and there are other instances where collaborative outcomes were not encouraging, particularly in relation to socio-economic upliftment and transformation (Pool-Stanvliet, 2010). Before drawing useful lessons from this collaborative experience in the KBR, it is crucial that one examines also the dynamics that have shaped or contributed to these outcomes.

4.3.3 Dynamics of collaborative governance in the KBR

According to Emerson and Nabatchi (2015), collaborative dynamics connote processes that interact in the broader system context and influence collaborative governance. Therefore, to conduct a fair analysis of outcomes, one needs to understand the influence of various forces or dynamics involved in the collaborative process (Stoll-Kleemann and O’Riordan, 2002). Thus these issues relating to dynamics are discussed under the following headings: leadership, benefits and incentives systems, participation and inclusivity, history of conflicts, and source of interest or sense of entitlements.

Leadership

The study noted that leadership plays a crucial role in bringing different stakeholders together to manage the biosphere. The feeling of respondents in the KBR confirms the argument of Emerson and Nabatchi (2015) that leadership can make or break a collaborative process, an observation unanimously supported by respondents from both

sides of the divide including the conventional key stakeholders and the rural community members. Expressing somewhat optimistic feelings about the new leadership of the KBR, a private business operating in the KBR commented:

...yes definitely, now the focus is more on what we [stakeholders] can do in terms of inclusivity, involving the marginalised and previously disadvantaged people; before there was too much talk and too little being done, and the consequence was that KBR was losing some important actors, you actually need stakeholders but if it is just a talk show, you may lose stakeholders (KR2).

This argument of involving stakeholders in collaboration confirms the viewpoint of Pool-Stanvliet et al. (2018) who noted that biosphere reserves need to engage people if they aim to achieve their objectives (Pool-Stanvliet et al., 2018). According to Emerson et al. (2011), leadership is a key determinant of success or failure of collaboration in the sense that leadership can promote positive or negative outcomes depending on how it is applied (Emerson et al., 2011).

Supporting the above narrative, a key respondent from the water catchment management agency in the KBR noted the biased approach that KBR had adopted over the years in relation to environmental conservation and socio-economic development, and how this position has somehow influenced representation in the KBR:

Previously the leadership had been looking at the environmental part [only] and ignoring that people are living in shacks in the area, now it seems sort of focusing on getting these people involved and integrated in the process; this seems an exciting potential (KR10).

Corroborating the above arguments about the importance of leadership in collaborative governance, a state agency in charge of the environment suggested some qualities that a collaborative leader must possess in order to make the collaborative process work:

...yes leadership contribute in a way, but a certain kind of leadership leads to collaboration and participation, a certain kind of leadership leads to conflict, isolation and working in silos - a leader who embraces diversity of views, ideas

culture and participation allows for good collaboration, whereas a dictatorship [kind of] leadership will cause the biosphere to work in silos (KR6).

This argument seems to corroborate the view of Ansell and Gash (2007), who argued the need to deliberately profile the role of the collaborative leaders in order to ensure that the required skills, competencies and expertise are carefully harnessed to support the process (Ansell and Gash, 2007). Other qualities, such as the motivation to lead, a strong commitment to collaboration, the willingness to promote inclusivity, building trust with critical stakeholders and promoting benefit-sharing, must also be part of the profile of the collaborative leader (Wiggins and Damore, 2006). This is because without this kind of leader to moderate things, the collaborative process could easily be hijacked by powerful interests (Emerson and Nabatchi, 2015; Müller, 2008).

Participation and inclusivity

The study observed a serious lack of inclusivity in the governance structure in the KBR. While the KBR management seems full of the mainstream stakeholders, like its institutional partners, the rural community people seems to have been relegated to the background (Müller, 2008; Pool-Stanvliet, 2014). Supporting this observation, a rural community member commented:

This biosphere has been monopolised, there is no diversity on the board, the community is not represented. For me this is what stops the biosphere from being the type of biosphere open for cross engagement that it should be (KR19).

Underlining how volatile management efforts in the KBR has become, because the KBR management is not representative, and critical stakeholders like the marginalised and previously disadvantaged people are not meaningfully engaged in the management of the KBR (KBRC, 2006), a key respondent from a local community organisation in the KBR narrated:

The board is not inclusive. It doesn't represent the demography of the area, and this is very risky because you cannot manage a place like the Kogelberg if you haven't got the support of everybody, including the ordinary people (KR15).

This narrative seems to support the observation by Emerson and Nabatchi (2015), about the importance of encouraging the involvement of local stakeholders in collaboration, because where critical stakeholders are neglected, collaboration cannot achieve its expected results (Emerson and Nabatchi, 2015).

Benefits and incentive systems

Although benefits and incentives simulates stakeholder engagement and drive collaboration (Jordan, 2005), this study observed that there is a weak incentive system in the KBR. First, there is no mechanism in place to encourage the participation of rural communities in decision-making processes in the KBR (KBRC, 2006), a situation which gives room for power unbalance between powerful and vulnerable stakeholders, and which can easily affect collaborative outcomes (Koontz et al., 2006). Second, there is some form of unbalanced service delivery across sectors in the KBR. The fact that the KBR seems to focus more on environmental conservation than on the socio-economic development needs of the local population, creates a disincentive that does not favour collaboration, particularly among those key stakeholders whose mandate is to promote socio-economic development in the region (KBRC, 2012). Providing support for this observation, a private business operating in the KBR remarked:

The KBR is very much focused on the environment and less on the social impact on the community, the environment part is quite well protected but the social and the economic impacts are not very visible (KR7).

Third, the lack of dedicated funding to implement specific projects also constitutes a disincentive for collaboration (Müller, 2008; Pool-Stanvliet et al., 2018). Because the rural communities are of the opinion that there is a lack of transparency in the management of the KBR, they are not convinced that the collaborative process in the KBR is fair enough to protect their interests. This argument seems to corroborate the views of Ansell and Gash (2007) that where collaborative decision-making processes are clear, and ground rules about participation are also clear, stakeholders get reassured and it is only then that trusting becomes easy (Ansell and Gash, 2007). In addition, the

existence of supportive laws, to some extent, have also helped to foster collaboration among stakeholders in the KBR (Müller, 2008).

History of conflicts

For collaborative governance to yield appreciable results, it is imperative that people representing all sides to the argument come to the negotiation table in a spirit of trust and reciprocity (Müller, 2008). In the KBR, however, there are some systemic challenges and a history of conflicts that make collaboration somewhat problematic (KBRC, 2006). The fact that legitimate social needs of the rural communities are also not met, makes collaboration all the more difficult (Western Cape Province, 2017). Explaining how the need for graveyards has sparked protests in the KBR, a key respondent from a local community organisation in the KBR narrated:

For some time now we have been protesting for a place to burry our dead, but the biosphere is not supporting the normal way of burying people, they say it is polluting the earth, and they don't have land to open new graveyards so people should incinerate their dead and use the wall of remembrance (KR15).

This narrative seems to explain what Redpath et al. (2012) said, when they argued that it is unrealistic to try to adopt a 'winner-takes-all' attitude when grievances are not addressed. The ideal, Redpath et al. (2012) argue, should be to assess the needs of the different protagonists in order to differentiate the needs that are legitimate and non-negotiable, from those needs that may be secondary, in order to arrive at some form of win-more lose-less type of solutions that are acceptable to all (Redpath et al., 2012). According to Wiggins and Damore (2006), the success of a voluntary collaborative arrangement depends, to a great extent, on how communication is handled between the different stakeholders (Wiggins and Damore, 2006). Explaining how a lack of communication and active engagement of local communities in the KBR has resulted in conflict over a new community project, a rural community member mentioned:

...you have these home schools [operating] in the area, and all of a sudden these people [project people] came to build a new crèche on the piece of land that our people have also got their eyes on, without talking to anybody, now they expect

the home schools to submit their jobs to the crèche, and now there is conflict (KR20).

The breakdown of trust between the rural communities, their elected officials, the Municipalities and KBRC is somehow related to unfulfilled promises or disappointed expectations, which now leads to more protests in the KBR. Although this challenge is not underlined in the KBRC (2009) Periodic Review Report, it still affects collaboration in the KBR. Explaining how a lack of proactive engagement from critical stakeholders in the KBR undermines collaborative efforts, threatens sustainability and sends Municipalities chasing their own tails, a key local government official narrated:

People move into an undeveloped piece of land and build shacks, and then protest for municipal services like electricity and water, etc. and if you can't get the services to them, they protest, and sometimes while you are trying to address the problem over here, other places are getting invaded (KR12).

The fact that part of the KBR is privately owned, and the other part is public land, is another cause for conflict. Because on the one hand you have land owners who want to develop their properties, and on the other environmentalists who oppose development in the biosphere (KBRC, 2012). According to schedule 3 of the National Water Act, the water catchment management agencies have some delegated powers from the national department to manage water resources within their catchment boundaries. However, in case of emergency situations, the national department's powers take pre-eminence over the powers of the catchment management agency, which brings another type of conflict called resource conflict (Müller, 2008). Explaining this further, a key respondent from the water catchment management agency in the KBR state:

...we sometimes have disagreements with Water Affairs [Department] about how much water can be kept in the Kogelberg region, because there is the need to drill water to supply Cape Town and we are obviously concerned about the impact of that on the fragile water-dependent ecosystems in the KBR (KR10).

This narrative seems to corroborate the views of Redpath et al. (2012) and Borrini-Feyerabend et al. (2004) who argued that conflict between stakeholders in collaboration is inevitable, but manageable if the concerned actors are willing to compromise on their positions. The extreme scenario could be that all parties to the conflict could refuse to meet each other half way, in which case the consequences will be a win-lose situation for both sides (Redpath et al., 2012).

Source of interest and sense of entitlement

Environmental resources in the KBR consist mostly of biologically diverse plants and animal species, most of which are endemic to the region. As diverse as the resources in the KBR are, so are stakeholders' interests in the resources. Taking stakeholders from the tourism industry as example, one could easily observe that their source of interest in the KBR is towards the plants and animal species, in addition to the beautiful landscape (KBRC, 2009). On that aspect, all relevant stakeholders seem to easily agree. This observation supports the view of Yeboah-Assiamah et al. (2016), who argued that where there is common interest in a resource, stakeholders are willing to join forces to ensure that the resource is adequately protected (Yeboah-Assiamah et al., 2016). With entitlements however, comes expectations (Borrini-Feyerabend et al. 2004). In the KBR, the sense of entitlement of the rural communities seems geared towards the land. Reconciling these interests therefore seems a challenge the KBR has to address in order to ensure sustainability (KBRC, 2012). The fact that the land in the KBR is owned by different entities makes it difficult for the KBR to reconcile the conflicting needs and interests in the biosphere (KBRC, 2012). Elaborating further, a key nature conservation manager in the KBR had this to say:

A biosphere does not exist, unless people take ownership of it, they can only take ownership if they know what the biosphere is, how you can live in it and benefit from it, the people are not aware of that, so they expect the biosphere to do everything, create jobs, build houses (KR1).

The above findings seem to support the observation by Borrini-Feyerabend et al. (2004), who noted that when it comes to forging alliance in managing resources, it is

crucial that one understands what people's concerns, relationships, claims and interests in the resources are, in order to develop solutions that are a tailor-made fit for the realities on the ground (Borrini-Feyerabend et al. (2004). This is because where people cannot see the benefits of collaboration on their livelihoods, they struggle to identify with the process, and they might even choose to sabotage the work or simply refuse to comply with the outcome requirements (Ansell and Gash, 2007).

Monitoring mechanisms in the KBR

A fundamental aspect of collaborative governance is monitoring. This is because collaborative dynamics are constantly changing, requiring some form of adaption which can only be realised through monitoring (Leach et al., 2002). This study observed that there are fragments of monitoring practices happening in the KBR, some specifically targetted at monitoring human impacts on biodiversity and water resources in the biosphere, and reviewing progress in management (KBRC, 2009). In support of this observation, a key nature conservation manager in the KBR noted:

The core [area] uses the Management Effectiveness Tracking Tool (METT) to assess its [own] performance [against a set of criteria], and supports this with relevant justification (KR1).

Because KBR receives funding support from the Province, it is expected to align its activities with those of the Province in relation to environmental management (Pool-Stanvliet, 2014). Some of these activities relate to creating opportunities for growth, improving education and awareness, and building a resilient and inclusive environment (KBRC, 2012). Moreover, KBR is expected to submit a quarterly report to the Provincial department (Pool-Stanvliet, 2010). Elaborating this further, a key state agency in charge of the environment explained:

The DEADP quarterly report does not evaluate the strategic framework of the biosphere reserve, but rather how the biosphere spent the money and whether what they are doing comply with the requirements of the Biosphere Act, follows the Provincial strategic goals and comply with their own core functions (KR6).

For example, when it comes to physically monitoring compliance in the marine area, which is plagued by overfishing and poaching activities (KBRC, 2009), KBR relies on the combined resources of stakeholders in the area, including the police, Cape Nature, DAFF and private entities. To enforce the zonal functions of the biosphere in relation of conservation and socio-economic development, the KBR relies on the IDP of the Municipalities (KBRC, 2012). Although these functions are somehow integrated in the 2013 SDF of the district Municipality, it is not clear how this is practically implemented (Western Cape Province, 2018). One way the KBR monitors this compliance within its boundaries is also through participation in land use decisions (KBRC, 2012). Both the National and Provincial State of the Environment Reports are other useful tools that help monitor land use patterns in the KBR. The KBR management also makes good use of academic research conducted in the biosphere although most of this research has so far prioritised the environment (KBRC, 2012). Besides, the Comprehensive Review Report that UNESCO expects biosphere reserves to submit every 10 years, is another monitoring mechanism that help KBR monitor its performance in relation to its core strategic objectives (KBRC, 2009). The KBR has been in existence for the past 20 years, and has since then only submitted one periodic review report to UNESCO in 2009. The second report is due this year.

4.4 Challenges of collaborative governance in the KBR

Collaborative environmental governance entails bringing together people from different sectors (many of whom have different views and values, opposing institutional mandates and conflicting interests), to manage a common resource in a way that serve not only conservation, but also addresses livelihood needs (Stoll-Kleemann and O’Riordan, 2017). Reconciling conservation and livelihoods development has become problematic, because environmental management responsibilities are highly fragmented (Müller, 2008) and institutional mandates are sometimes worlds apart (Rabie, 2005). In the KBR, some of the challenges encountered relate to the very essence of the biosphere in relation to “the impact of man on nature” (KBRC, 2006). Some of these challenges are institutional, legal, environmental, socio-economic and logistical.

Institutional challenges

It is worth noting that the KBR spans across two local Municipalities contained in a bigger district Municipality, which shares boundaries with a metropolitan Municipality. These Municipalities all have their distinctive, yet interdependent, functions, and together they all fall under the higher jurisdiction of the Western Cape Provincial Government (KBRC, 2009). Although the Constitution is clear that environmental management is a concurrent function of all organs of state, practically implementing this in the KBR, where different mandates and interests must be integrated, is not without some hurdles (Rabie, 2005:81; KBRC, 2006; Müller, 2008). Narrating this story, a key private business operating in the KBR explained:

...there are too many departments involved in the same thing, you have the department of fisheries, forests, environment, agriculture, it is just too many people, too many departments involved in the management of the environment, and then you have Cape Nature, SANBI, KBRC, then you have the local councils, the Municipalities etc...there is just too many actors (KR2).

Although the KBRC (2009) did not mention this stakeholder multiplicity as a challenge for collaboration, another key respondent from the private sector explained how this broad spectrum of stakeholders poses problem of coordination, instead of creating synergy:

Yes, there are far too many role players in the area to make it a strong coordinated effort. They all see themselves as doing their own things, responsible for their own thing, not as a part of the Kogelberg Biosphere Reserve, probably because of their individual mandates (KR7).

Further explaining how the lack of coordination among stakeholders in the KBR, coupled with the lack of human resource (Pool-Stanvliet, 2014), impede active stakeholder engagement in the KBR, a key biodiversity conservation manager in the KBR narrated:

There is a lot of us [stakeholders], sometimes the messages passed each other and you cannot always attend all the meetings, you can send representatives to go for a meeting, but still we don't have many people working with us (KR11).

There is also the issue of sectoral bureaucracy and lack of clarity about which organ of state is competent to deal with what aspect of the environment in the KBR (Rabie, 2005:91; KBRC, 2006; Müller, 2008). When it comes to land use management, there are also inter-sectoral disputes engendered by the different mandates and priorities of stakeholders in the KBR (Rabie, 2005). However, while some respondents argue that there are too many actors involved in the KBR, an observation that is silenced in the KBRC (2009), others specifically argue that participation from key government institutions, particularly municipal councils and district Municipality, is lacking.

The KBR also faces the challenge of limited resources, which impedes its capacity to implement activities and also do monitoring (KBRC, 2006; Rabie, 2005). While some respondents from the KBRC advisory committee argue that the KBR needs more funds to be able to fulfil its core functions and comply with requirements, others from the Provincial government argue that the money that the biosphere reserve receives, although it may not be enough, is proportionate to the scale of awareness activities expected. This view is held, notwithstanding the fact that insufficient funding is affecting specific project implementation in the KBR (Müller, 2008; Pool-Stanvliet, 2010). However, care must also be taken not to turn the biosphere into a separate entity which engages in activities that are already been implemented by some other departments (KBRC, 2006). Against the argument of mobilising funds from other sources to support implementation of projects in the KBR, a key state agency in charge of the environment commented:

...money from external sources could change the focus of the biosphere and affect accountability, because external donors have their own requirements and interests, which could easily conflict with the requirements and interests of the government and other stakeholders in the biosphere (KR6).

Aside from the above, politics also play a crucial role in the KBR. As narrated by a key member of the management of the KBR:

...it just so happens that we've got a biosphere reserve where politics play a major role in creating a situation that becomes a challenge for the biosphere to manage, the housing problem for example (KR3).

This observation further supports findings from the Strategic Management Framework (2006) which recognised both the poor service delivery capacity of the local government, and the unstable political climate in the Kogelberg region as major threats to conservation in the region (KBRC, 2006; Western Cape Province, 2018).

Legal challenges

The legal context in the KBR is as complex as the ecosystems it manages (KBRC, 2012). For example, the core area of the KBR is a designated state forest, declared under the National Forests Act of 1998, and is managed by Cape Nature. The river ecosystems are managed by the Catchment Management Agencies mandated by the National Water Act of 1998. The mountain ecosystems are covered by the Mountains Catchment Areas Act of 1970. In the same way, the marine areas are protected under the Marine Living Resources Act of 1998. There are several conservancies, stewardship sites and pockets of other natural sites which are also absorbed by some other pieces of legislation relevant to environmental management in the KBR (Rabie, 2005:89; KBRC, 2012). This quagmire of legislation poses a significant problem of integration, creating unnecessary bureaucracies, which in turn inhibit the effective implementation of collaboration in the KBR (Rabie, 2005:91).

Unlike the water catchment management agencies which are legal entities, the KBR has no legal mandate (Müller, 2008:87). Although the Western Cape Province Biosphere Reserve Act of 2011 provides the legal space for KBR, it seems this is insufficient when considering the challenges on the ground. This lack of legal status, which some respondents described as lack of teeth, represents a significant barrier when

it comes to enforcing compliance in the KBR (KBRC, 2006). This was the observation of a key private business manager in the KBR who noted:

...having the powers to actually act on something, I don't think they [KBR] have, so they [KBR] can tell somebody some things but there is no legal stand for that, I think they've got very limited powers (KR11).

This narrative confirms the views of Müller (2007) who argue that the lack of legal status for the KBR inhibits its prospects for partnership with other stakeholders and also undermine its collaborative efforts in the region (Müller, 2007:23). As Carlsson et al. (2007) argue, a biosphere reserve that lacks legal recognition may find it difficult to reach any legally binding agreements with its collaborative partners (Carlsson et al. 2005:70). Giving support to this argument, a key respondent from the private sector commented:

There is no legislation that forces me to comply in terms of the KBRC, in terms of environmental legislation, yes, but KBRC is just another entity, that is the perception. The KBRC should normally be the overarching platform for coordination of conservation issues in the area, but that is the real challenge (KR21).

While some respondents are convinced the KBR needs some specific legal status to be able to adequately implement its core functions, others commentators argue that there is no need for more laws, since KBR is already somewhat protected through the numerous laws governing environmental management in the country (DEA, 2015). Creating a specific law to protect biosphere reserves may not deliver expected results if other aspects of governance such as financial resources and public participation are not adequately considered (Pool-Stanvliet, 2013; Cuong et al., 2017b). This argument is supported by quite a number of respondents, one of whom narrated:

Too much laws create more administrative burden. A legislation is meant to control actions in the biosphere especially actions that may have negative effect on the environment...laws don't implement themselves, they can create the

enabling environment but [meaningful] stakeholder engagement is what makes a collaborative process work (KR6).

For Cuong et al. (2017b), this legal argument is not really an issue, because a lack of specific legislation also offers the biosphere reserve a certain level of flexibility which allows the biosphere to customise its implementation to fit its local conditions (Cuong et al., 2017b:24). This argument seems supported by DEA (2015) in a recent publication which noted that “increased legislation for biosphere reserves could lead to an increase in state-required interventions in the Biosphere Reserve Programme and a loss of autonomy and flexibility” (DEA, 2015:21). In relation to the land use function of the KBR, the existing laws already provide the necessary space for the biosphere reserve to mainstream its functions of core, buffer and transition into land use management decisions (DEA, 2015). This was the view of a key local government official in the KBR:

Land use management is the responsibility of local authorities, which leaves the KBRC as an I&AP [Interested and Affected Party] to try to influence any proposed land use change through the consultation and participation processes that the legislation provides (KR13).

While some respondents argue for a specific law for KBR, others explain how existing law could hamper collaboration between KBR and some of its partners, thus supporting DEA’s remark that a specific law for biosphere reserves could undermine the concept’s flexible approach to collaboration (DEA, 2015). Using the example of fishermen involved in the KBR, a key respondent from a non-governmental organisation in the KBR narrated:

We are working on an illegal poaching project, the idea is to have DAFF and the fishing community to work together. We’ve got community people who are willing to assist but they cannot be part of the patrol team, unless they are employees of Cape Nature according to the rules (KR5).

Obviously, the existing laws not only overlap with each other in some areas of management of the KBR (Müller, 2008) but also create unnecessary fragmentation, to the extent where a ‘whole’ environment is divided into different components, each

assigned to different institutions and managed using different tools (DEA, 2015). Explaining further, an official from a state agency in charge of the environment stated:

You've got EIA decision for NEMA, water licencing under Water Act, exploration permit under Minerals Act, etc...for some people the legal process is too repetitive and this easily demotivate from wanting to co-operate (KR6).

Aside from these challenges, the KBR is also confronted with the problem of lack of legitimacy, because critical stakeholders from rural communities are not involved in management processes (KBRC, 2006). This seems to support the observation by Borrini-Feyerabend et al. (2004), who argue that active community engagement provides some form of credibility to governance decisions, and where this engagement is lacking, collaborative efforts are delegitimised (Borrini-Feyerabend et al. 2004).

Conservation challenges

The observation made by Rossouw et al. (2004) that conservation, particularly among deprived communities in South Africa, means alienation from nature and loss of livelihoods, and is for the exclusive benefit of a few elites, still holds true in the KBR (Rossouw et al., 2004:131). The study observed that there is a major lack of interest from the rural poor community when it comes to conservation matters in the KBR. The reason for this is partly because the biosphere concept is still misunderstood, miscommunicated and misapplied in the KBR (Pool-Stanvliet, 2013). For the elites, the concept of biosphere denotes declaring core and buffer areas as much as possible to keep people out, so that the biosphere can be managed as a protected area. For the rural poor community, which seems to benefit little from conservation in the biosphere reserve, the KBR is simply another fenced protected area. Thus, convincing the rural population about the unique value of the KBR for conservation and socio-economic development in the region is a challenge the KBR needs to address in order to guarantee sustainable outcomes (Rabie, 2005). Failure to engage the general public in the management of the KBR is undermining conservation efforts in the biosphere (KBRC, 2012). The evidence is seen in the rising poaching activities taking place in the marine and terrestrial areas in the KBR. This issue was raised in the KBR Strategic

Management Framework (2006), suggesting that poaching could spread to terrestrial resources if social-economic development issues are not addressed (KBRC, 2006; Turpie, et al. 2009).

The lack of awareness about how sensitive and fragile the ecosystems in the KBR are, coupled with the negative impact of human activities in the biosphere, are further hurdles confronting the KBR (Pool-Stanvliet, 2010). Insufficient human and financial resources also affect conservation in the KBR, because most stakeholders (including government) are unable to see the unique contribution that the KBR is making in terms of eradicating poverty and promoting inclusive growth and development, which makes these stakeholders reluctant to support management efforts in the KBR (Pool-Stanvliet, 2010). The fact that there are many conservation entities in the KBR, also poses another challenge, in the sense that the KBR now has to demonstrate its distinctive relevance for conservation, which is currently not the case (Rabie, 2005:91). The fact that the KBR has a mix of public and private ownership is another challenge in relation to conservation versus private property development, or conservation versus low-cost housing (KBRC, 2006:9). The issue of climate change can also negatively affect future conservation in the KBR, and require more research about potential impacts, and how to adapt to or mitigate these impacts.

Socio-economic development challenges

One of the key functions of a biosphere reserve is socio-economic development, however when it comes to practical implementation of this function, particularly in a complex context like in the KBR, the stakes are high (KBRC, 2012; Pool-Stanvliet et al., 2018). Because of the history of past discrimination where conservation was prioritised over socio-economic development, particularly in deprived communities (Rossouw et al., 2004:131), KBR now finds itself confronted with problems of high inequality, poverty and high demand for resources. Because land ownership in the KBR is both public and private, there is growing pressure from many sides; for land to be developed for residential purposes and businesses (including low cost housing), as well as for land to be protected. The study also observed that while some groups of people

are drawn to the KBR because of real job opportunities on farms and in tourist-related businesses, others migrate because of rumours of job opportunities in the KBR (such as clearance of alien vegetation), resulting in an influx of people that needs to be housed (Western Cape Province, 2017).

The fact that most of these farm jobs are temporary, with no long term prospects, is another challenge which exposes the KBR to high unemployment, which also impacts on its management (Western Cape Province, 2017). A typical example is the rise in poaching of marine resources and the illegal harvesting of wild flowers. The lack of alternative source of livelihoods is another challenge for the KBR, especially for the rural poor communities who are highly dependent on the natural resources in the KBR for their subsistence, (Western Cape Province, 2018). In addition to the eco-tourism opportunities, there were other initiatives towards identifying alternative sources of livelihood for the rural communities. For example, there were suggestions for starting small scale vegetable gardens, tour guiding, and abalone farming in some communities (KBRC, 2012). Lessons can also be learnt from the green economy initiatives undertaken in the the Bia Biosphere Reserve in Ghana, where greener livelihoods such as bee-keeping, snail and mushroom farming replaced sourcing these products from the forests. The challenge, as explained by a key non-government organisation in the KBR, is that *“we are all different stakeholders with different mandates, so the question is who is going to take it upon themselves to run with it, to source for the needed funds and mobilize everybody?”* (KR5). When it comes to empowerment initiatives, the KBR is again found wanting. Although a few initiatives, such as the Grabouw Beautiful and the Mthimkhulu Greening Initiatives, are trying to add value to the rural communities, these initiatives are still token contribution to the socio-economic realities of the KBR (KBRC, 2012).

Logistical challenges

To aid in implementation, the KBR has developed a Strategic Management Framework Plan which guides its activities (Pool-Stanvliet, 2010). However, because this framework plan has no corresponding monitoring and evaluation system, makes it

difficult to ascertain whether or not the KBR is effective in achieving its strategic goals in terms of conservation and socio-economic development (KBRC, 2006). Moreover, when it comes to research, the KBR seems to devote much of its attention to research related to conservation, rather than to socio-economic research. With regard to information sharing in terms of best practices and success stories, the KBR has been doing little to share its story. The issue of how stakeholders' engagement has helped or hindered KBR from achieving its core objectives, is also research information that is missing from the KBR repository.

4.5 Conclusion

This chapter presented the KBR case study. Using the collaborative governance framework developed in chapter 2 above, as well as analysis of interview findings and existing documentation, the case study was unpacked following four main sections. Section one was the case description, which provided the background of the KBR and where it is located. Section two set out the system context, which dealt with the governance structure of the KBR, as well as the legal, socio-economic and environmental conditions within which the collaborative process in the KBR evolves. Section three dealt with the outcomes, which uncovered the effect of collaboration on institutions, and socio-economic factors of development in the KBR and section four presented the dynamics that influenced collaboration in the KBR and shaped its outcomes. In addition, the challenges of collaboration were also presented, to give a broader perspective of the collaborative governance experience in the KBR.

Chapter 5: Conclusion and recommendations

5.1 Introduction

This chapter presents the summary and conclusions of the research findings. It answers the research questions in three different parts; highlights lessons learned from the collaborative experience in the KBR, and make recommendations.

5.2 Answering the research questions

The key question this study sought to answer was: ‘What is the effect of collaborative governance on environmental and socio-economic development outcomes in a biosphere reserve?’ To answer this main question, three sub-questions were formulated to guide the process:

- a) According to the literature, what is the framework for assessing collaborative environmental governance?
- b) What are the international agreements, policies and South African laws that regulate environment management and biosphere reserves, and to what extent do they promote collaboration and sustainable development?
- c) What lessons can be learnt from the collaborative governance experience in the KBR and what recommendations can be made?

Sub-question a) According to the literature, what is the framework for assessing collaborative environmental governance?

The answer to this question is provided in Chapter 2. Using the literature, the study first revealed that there are five dimensions to sustainable development namely socio-economic, environmental, political and built-environmental dimensions, and that a just transition to sustainability requires an integrated approach where all the dimensions are addressed in a combined way. Secondly literature on collaborative governance revealed key elements that must be included to define a collaborative arrangement. Using the different elements, an assessment framework was developed (see figure 2.2). It

comprised an iterative circle of three core elements including system context, dynamics and outcomes. The system context sets the conditions under which collaboration evolves, the dynamics influence how collaboration turns out, and the outcomes reveal the effect of collaboration on key conditions in the system context. Besides the conditions under which collaboration succeeds or fails, some of the key principles of collaborative governance were also highlighted. For instance, the study found that collaboration is likely to succeed, where there is a) mutual benefits for all stakeholders; b) incentives for participation in processes; c) mechanisms for timely adjustment to emerging situations; d) proactive leadership and e) stakeholder support and commitment. Conversely, collaboration is likely to fail, where a) critical stakeholders are excluded; b) social sustainability is neglected; c) collaborative processes are hijacked by powerful interests; d) functions, roles and responsibility of stakeholders are ambiguous; e) active commitment is lacking; f) legitimate needs and demands are ignored; and g) space for negotiation, compromise, mutual accommodation, or conflict resolutions are non-existent. The conditions under which collaboration succeeds or fails must not be overlooked in the quest for effective collaboration.

Sub-question b) What are the international agreements, policies and South African laws that regulate environment management and biosphere reserves, and to what extent do they promote collaboration and sustainable development?

The answer to this question is presented in Chapter 3. Scanning through international agreements, frameworks, laws and policy documents, the study revealed that there are a multitude of laws, policies and frameworks that regulate environmental management in South Africa. Despite their divergent scope, all of these laws are guided by the Constitution of the Republic, which obliges all organs of states and relevant stakeholders, particularly those involved in the administration of the environment, to work together. Although fragmented along the lines of the different functions of the environment, these laws are guided by the fundamental principles of co-operative governance, and by the environmental rights prescribed by the Constitution of the Republic (see table 3.1). Despite their relevance in creating the enabling environment

for collaboration, these laws seem to hold no material impact when it comes to results on the ground. Therefore, having a specific law for biosphere reserves may not necessarily be the key determinant of success in the collaborative arrangement in the KBR (DEA, 2015). Although some of these laws do overlap, and in some instances, even conflict with each other in relation to their functions and jurisdictions, they provide the framework for stakeholder collaboration around environment management. However, sometimes it is not clear whether the political will is there to implement some of these laws, if adequate finances were available. Apart from promoting sustainable development, which is the central tenet of some of these laws, participatory democracy or public participation in decisions are also strongly emphasised, as required by international agreements such as the Aichi biodiversity targets, the Rio + 20 ‘*The Future We Want*’, the Sustainable Development Goals (also known as ‘*Transforming our World The 2030 Agenda for Sustainable Development*’), the New Roadmap for the MAB Programme and the Lima Action Plan.

Sub-question c) What lessons can be learnt from the collaborative governance experience in the KBR, and what recommendations can be made?

The answer to this question is provided in Chapter 4. Using the assessment framework developed in Chapter 2, as well as interview findings and existing documentation, the study explored the KBR case study and established the context within which the collaboration unfolds. To gather data about the collaborative experience in the KBR, two data sources were explored: semi-structured interviews of relevant stakeholders, coupled with document analysis of reports and studies about the KBR. In total about 25 people were interviewed, from representatives of key institutions, and businesses, academia and community members in the KBR. The findings revealed that where there is meaningful collaboration, positive outcomes were more likely to be achieved, like in the case of the KBR where environmental conservation seem to be benefiting a great deal from the collaborative efforts in the biosphere, unlike the socio-economic development aspect which seems not to arouse the same stakeholder interest and mobilisation. Conversely, where there is lack of engagement because key stakeholders are playing their cards close to their chests, while critical stakeholders are excluded, the

consequences could be dire, like in the KBR where the marginalised people do not trust the management to the extent that securing support for collaboration has become a complicated challenge.

The case study also presented the outcomes of collaboration as it relates to institutional and socio-economic factors of development in the KBR, and highlighted the dynamics that influenced those outcomes. The resulting findings are that collaboration, to some extent, and under certain conditions, has improved certain outcomes, particularly the environmental outcomes. It also noted that socio-economic outcomes are not adequately addressed, thus undermining sustainability efforts. Hence the need to enhance collaboration with relevant stakeholders in order to balance these development objectives and adapt when necessary.

5.3 Lessons learnt

Given its unique system context and dynamics, the KBR has a lot to offer when it comes to learning from what works in a complex biosphere reserve, what doesn't work, what can be improved in which area, in order to guarantee positive results. Some of the lessons learned from the KBR experience entails the following:

- a) One cannot preach conservation to poverty - when people are struggling to make ends meet, conservation is the last thing they are concerned about;
- b) Conservation cannot succeed where basic needs of food, water and shelter, including other legitimate needs of critical stakeholders are ignored;
- c) The biosphere reserve cannot ignore the realities in the local context within which it evolves and expects to fully achieve its core functions;
- d) Prioritising the conservation objectives of the biosphere over and above the socio-economic needs of people in the biosphere cannot be a sustainable way of managing the biosphere;
- e) Collaboration is bound to fail where critical stakeholders, like the disadvantaged and the marginalised people who live in the biosphere, are excluded from management processes and are not represented in any other way in the collaborative process;

- f) Managing the biosphere reserve like a protected area may offer some short term benefits but will not work for the long run, because of the growing human population and rising demand for natural resources;
- g) Attempting to reduce high dependency on natural resources. while providing no alternative solutions, may prove challenging particularly for communities that depend on natural resources for subsistence and livelihoods;
- h) Monitoring provides a good platform for assessing the performance of collaboration and make adjustments where necessary, but when monitoring becomes a tool for prioritising the environment over socio-economic development particularly in a biosphere reserve, the result is a myopic and unbalanced view of things, with long term consequences that affect planning and development in the biosphere;
- i) Where the scope of responsibilities, powers and jurisdictions of different stakeholders involved in the biosphere are not explicit, confusion and conflicts may become the norm; and
- j) Providing a space for meaningful engagement of critical stakeholders is not only a way to accommodate their views and opinions, and attract their support, but also to manage expectations and conflicts.

5.4 Relevant recommendations

On the basis of the findings, a number of recommendations can be made:

Firstly, there is a need to clarify and distinguish between the function of Cape Nature, which manages the core area, and the function of Kogelberg Biosphere Reserve Company (KBRC) which manages the entire biosphere reserve. A clearer articulation of these functions may help the KBR to manage expectations and enhance stakeholders' collaboration in the biosphere.

Secondly, the socio-economic needs of jobs and housing in the KBR must be addressed, if conservation is to stand any chance of winning in the long run. The individual IDPs of the Municipalities are presumably the main tool for addressing these challenges, but

due to insufficient budgets, the Municipalities are unable to do much. Hence there is a need for a deliberate concession from key stakeholders, particularly major land owners to support land reform programmes to help address past land injustice and also help empower the subsistence of rural communities. Proactive long term land use planning among relevant stakeholders in the KBR is strongly recommended, to deal with the continued land problems and other human and climate related environmental issues. The high dependency on natural resources, coupled with the problems of unemployment and poaching could be reduced through deliberate livelihood diversification initiatives and working with the private sector. Priority must be given to collectively identifying alternative sources of livelihoods and business development opportunities for local communities together with private businesses and relevant Municipalities, rather than imposing some already-made solutions on the local communities. Besides, instead of developing more conventional tourism-related businesses, which do not significantly impact the lives of the rural communities, more community development projects should rather be encouraged. Aquaculture, small scale farming and indigenous plant nurseries, vegetable gardening, animal husbandry, and pro-poor tourism could be explored to help the rural communities sustain their livelihoods beyond what the agricultural and tourism sectors already provide.

Thirdly, the KBR should do research about potential climate impacts, and in line with the New Roadmap for the Man and the Biosphere (MAB) Programme and the Lima Action Plan for 2025, start to collaboratively plan for climate change adaptation and mitigation. This would include, as mentioned in the Climate Change Bill of 2018, to enhance adaptive capacity, to strengthen the resilience of social, economic and environmental systems, and to reduce the vulnerability to risks such as droughts, land degradation, floods, fires and sea level rise.

Fourth, the KBR cannot avoid development in the region, but it can influence how and where this development takes place, by remaining proactive in the way it implements its Strategic Management and Spatial Framework. For that, the KBR must take its role both as a vehicle and an ally in proactively supporting the Province and the

Municipalities in implementing their SDF and IDP. The KBR can also support community development projects and awareness initiatives, run by the communities themselves, as a way to build trust among the rural communities and the biosphere.

Fifth, because most of the societal problems in the KBR are wicked problems, in the sense that they are influenced by complex dynamics that are constantly changing and any attempt to solve one aspect of the problem leads to other problems (Rittel and Webber, 1973), it is crucial that the KBR is seen as providing solutions rather than being part of the problem. Given the protests and disputes over access to land in the biosphere, the KBR could play the neutral broker for meaningful negotiation between the different parties. The suggestion is to develop a Memorandum of Understanding (MoU) between KBRC and its key partners to guide the land discussion in support of the Municipalities (KBRC, 2012). Furthermore, a MoU between the Municipalities and the KBRC Board is required to facilitate dialogue and land use dispute resolution.

Six, conflicts should not be left unresolved, but rather used as impetus for understanding the nature of grievances, in order to change the course of actions towards more reconciliatory solutions. Seemingly wicked problems cannot be solved, but they can be tamed through deliberate stakeholders' actions and political support (Batie, 2008). Thus, one step in the right direction could be to meaningfully engage all stakeholders, including the marginalised and the disadvantaged, in management decisions particularly those related to land use decisions in the KBR.

Seven, monitoring land use and forest cover changes needs to become a regular practice in the monitoring systems in the KBR. Spatial imagery should be explored more frequently to help the KBR to visualise at a glance, the extent to which property development or encroachment activities are happening in the core, buffer and transition areas, in order to raise the alarm with the local authorities when necessary.

Eight, because the dynamics in the biosphere are changing so fast, the KBR cannot afford to rely completely on the 10-year Review Report of UNESCO to evaluate its

progress in implementing its strategic vision. For that, more intermediary assessment measures should be encouraged through the use of satellite imagery, as well as gathering of feedback directly from stakeholders involved in the management and those living in the biosphere. The KBR can also capitalise more fully on the shared monitoring efforts of stakeholders like Cape Nature, DAFF, the police and private entities, who are already active in some way or form in various monitoring activities in the biosphere.

Nine, because the land use planning and development function is vested in the Municipalities, it is crucial that the KBR works closely with the Municipalities in order to ensure that development in the KBR complies with the core functions of the biosphere.

Ten, it is crucial that the KBR builds a track record of good practices and success stories in relation to balanced conservation and socio-economic development, to serve as incentive for key stakeholders engagement in the collaborative process, and support for extra-budgetary resource mobilisation efforts.

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