BIODIVERSITY MAINSTREAMING AND POLICY ADVICE ASSESSMENT:

An initial assessment of SANBI’s biodiversity mainstreaming history towards an evaluation of its achievements, effectiveness and lessons learnt

THE LIVING CATCHMENTS PROJECT

(2019-2023)

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Acronyms

AIS  Alien and Invasive Species
BGIS Biodiversity Geographic Information System
BIPA Biodiversity Information and Policy Advice
BMP-E Biodiversity Management Plans for Ecosystems
CAPE Cape Action for People and the Environment
CBA Critical Biodiversity Area
CBD Convention on Biological Diversity
CITES Convention on International Trade in Endangered Species
CSIR Council for Scientific and Industrial Research
DSI Department of Science and Innovation
EI4WS Ecological Infrastructure for Water Security
EIA Environmental Impact Assessment
FEPA Freshwater Ecosystem Priority Areas
GEF Global Environmental Facility
MPAH Maputaland-Pondoland-Albany Hotspot
NBA National Biodiversity Assessment
NBF National Biodiversity Framework
NBSAP National Biodiversity Strategy and Action Plan
NCCRPWP National Climate Change Response White Paper
NDP National Development Plan
NFEP National Freshwater Ecosystem Priority Areas
NSBA National Spatial Biodiversity Assessment
RDI Research, Development and Innovation
SANBI South African National Biodiversity Institute
SKEP Succulent Karoo Ecosystem Programme
SWSA Strategic Water Source Areas
TOPS Threatened or Protected Species
UEIP uMgeni Ecological Infrastructure Partnership
UNDP United Nations Development Programme
WRC Water Research Commission
WWF World Wide Fund for Nature
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Executive summary

The Living Catchments Project is a collaborative project to strengthen the enabling environment for water governance in South Africa. The project aims to make it possible for effective, well-resourced water governance structures to be established at a catchment level, so that the national Water Research, Development and Innovation Roadmap can be successfully implemented. In furtherance of this goal, one cluster of work for the Living Catchment Project involves an evaluation of the lessons learnt and best-practices for providing policy advice and mainstreaming in to the water sector. This document forms the first step in the assessment, and intends to gather relevant background information and insight from key practitioners to better understand the history of biodiversity mainstreaming and policy advise in South Africa.

The South African National Biodiversity Institute (SANBI) has a legal mandate under the National Environmental Management: Biodiversity Act to provide policy advice on matters of biodiversity to the Minister of Environmental Affairs and other government structures. SANBI is also tasked under various national strategies and frameworks to take on activities related to biodiversity planning, threatened ecosystems and species, invasive species, ecological infrastructure, climate change, and protected areas. Much of SANBI’s mandated work involves mainstreaming biodiversity considerations into other government sectors or industries. Policy advice within SANBI is conducted primarily by the Policy Advice Directorate within the Biodiversity Information and Policy Advice Division. However, due to the nature of biodiversity mainstreaming work, many staff within the organisation take on some degree of policy advice work and need to hone the unique skills required for this role.

Biodiversity mainstreaming is defined as “the process of embedding biodiversity considerations into policies, strategies and practices of key public and private actors that impact or rely on biodiversity, so that biodiversity is conserved, and sustainably used, both locally and globally.” SANBI has developed and refined its practices for biodiversity mainstreaming over the last 15 years. Biodiversity mainstreaming was first initiated during the bioregional programmes, which aimed to secure the conservation of biodiversity and make links with socio-economic development in priority biomes. SANBI’s work involving the implementation of spatial biodiversity plans emerged from the bioregional programmes, and has gone on to become one of its most successful biodiversity mainstreaming efforts. To further improve the mainstreaming of biodiversity, the Making the Case for Biodiversity project used market research analysis to develop a strong communications strategy for the biodiversity sector that emphasises the economic, emotional and practical value propositions for biodiversity. Applying this communications strategy, SANBI coined the term ‘ecological infrastructure’, which has garnered much attention and instigated further innovative biodiversity mainstreaming work at the interface between the biodiversity and water sectors.

Through its extensive experience, SANBI has learned valuable lessons about biodiversity mainstreaming that have been shared in various publications over the years. The “people, products, process” approach for biodiversity mainstreaming recognises the fact that biodiversity mainstreaming involves providing tangible products, but also is an ongoing social process. Six main factors that are common when biodiversity is
successfully mainstreamed into production sectors include: providing science-based policy advice, providing leadership and expertise, delivering high-quality tools, making the case for biodiversity, strengthening capacity and convening focussed discussion platforms.

SANBI’s journey of mainstreaming biodiversity into the water sector is shown using three case studies from milestone moments that reveal how successes necessarily build on previous work. The *National Spatial Biodiversity Assessment (2004)* was the first ever assessment of the state of biodiversity at a national scale. Its insistence that the freshwater realm be given the same level of attention as the terrestrial realm helped to emphasise that river ecosystems were highly threatened and often neglected. This led to the *National Freshwater Ecosystem Priority Areas (2011)* project, a multi-partner collaboration to gather and develop spatial data on river and wetland ecosystems and use this to identify a national network of freshwater priority areas. One of the spatial datasets produced was related to the variation in water yield across the country. It sparked a more thorough analysis of the areas that are important sources of water in the *Strategic Water Source Areas (2013)* project. Through this journey, it can be seen that successful biodiversity mainstreaming was achieved when the objectives of both the biodiversity and water sectors were aligned.

The background information gathered in this initial assessment will be used to guide a future comprehensive assessment of SANBI’s efforts at mainstreaming biodiversity into the water sector. Given the findings of this assessment, it is recommended that the next steps for the assessment include:

- Recommendation 1: Define the scope of the assessment
- Recommendation 2: Record biodiversity mainstreaming interventions
- Recommendation 3: Investigate roles and capacity for biodiversity mainstreaming
- Recommendation 4: Understand existing resources
- Recommendation 5: Investigate ways to measure biodiversity mainstreaming success
PART 1: Introduction

The Living Catchments Project

The Living Catchments Project is led by the South African National Biodiversity Institute (SANBI) for the Water Research Commission (WRC), and is funded by the Department of Science and Innovation (DSI). The project was developed in response to the Water Research, Development and Innovation Roadmap (Water RDI Roadmap) which is a national planning intervention aimed at addressing water scarcity in South Africa over a 10-year period between 2015 and 2025. The Water RDI Roadmap guides the refocusing of research, the reprioritisation of funds, the synergising of existing initiatives and the ring-fencing of new resources to facilitate a more effective water system.

The role of the Living Catchments Project is to improve the enabling environment in which the Water RDI Roadmap can be implemented. Specifically, to make it possible for successful water governance structures to be established at a catchment level. The project will build the capacity of researchers and practitioners so that they are better-placed to influence decisions about how water catchments are managed, towards a water secure future.

The project has a strong focus on learning lessons from SANBI’s experience of mainstreaming biodiversity into the water sector, and how to optimise the manner in which built and ecological infrastructure are managed in relation to each other. South Africa is a water scarce country, and there have been a series of recent serious water issues related to drought, water supply shortages, poor water quality and failing infrastructure that have drawn attention to water governance. Over the past 15 years, SANBI has achieved some notable successes in mainstreaming biodiversity into the water sector. Through this work, it is now more generally recognised that proper management of ecological infrastructure within catchment areas can improve both the quantity and quality of water that is available to people.

The primary aim of the Living Catchments Projects is to establish better-resourced ‘communities of practice’ that are involved with managing ecological infrastructure within important water catchments (Cluster 1 and 2). In support of this, the project also has an interest in strengthening the practice of policy engagement and the ways in which biodiversity is mainstreamed into the water sector (Cluster 3).

Purpose of this assessment

This document is a preparatory assessment that will form the foundation for the further work of Cluster 3 of the Living Catchments Project. The assessment will gather relevant background information about SANBI’s extensive experience in mainstreaming biodiversity over the last 15-years. It will provide a synopsis of SANBI’s policy advice practice to date, with a particular focus on the water sector. SANBI has produced a host of products and initiated a number of programmes across South Africa that aim to address water security through better
management of water catchment areas. Many of these have been successful in influencing continuing improvements to water policy and catchment management.

While there have been several efforts to reflect on what has been learned through these various products and initiatives, there has been no thorough evaluation of the impacts and shortfalls of SANBI’s practice of biodiversity mainstreaming and providing policy advice. Nor have the lessons learnt over the years been documented in a way that will improve future practices.

This assessment phase of the Living Catchment Project will inform a next-phase comprehensive assessment of SANBI mainstreaming practice. One of the reasons that such an expanded assessment is necessary is because results from an external review undertaken in 2017 acknowledged SANBI as a reputable biodiversity research institution, but did not fully recognise the institute’s policy advisory role. SANBI in fact plays a very important role in influencing decision-making by translating science into information that is relevant to both public and private sectors. The external review raises concern as to why such a key function of SANBI is not as noticeable as it should be.

An eventual outcome of this body of work is to create a best-practice guideline for policy advice and biodiversity mainstreaming. Such guidance on how to give effective policy advice and engage in meaningful biodiversity mainstreaming will help the catchment-based communities of practice of the Living Catchments Project to achieve their biodiversity mainstreaming goals. It will also help to consolidate the experience and bring awareness to SANBI’s important policy advice work. Guidance may further be useful to other organisations that perform a similar role to SANBI, who, by applying the lessons learnt from SANBI’s experience, may be better-placed to have their concerns taken seriously by the sectors into which they work. It will also be a useful tool for policy advise and mainstreaming practitioners more broadly, looking to learn from the diverse range of policy advisers and mainstreaming practitioners drawn on in the assessment.

**Methodology**

To provide a solid foundation for the later comprehensive assessment and development of good-practice guidance, this initial assessment report draws together information from a variety of sources:

- An extensive desktop research exercise to gather relevant documentation, including published papers, a wide range of grey literature, various reports and publications, and internal meeting notes.
- An expert focus group convened to decide the focus of the assessment, and to locate it within the work of SANBI, the division, and the Living Catchments Project.
- A series of semi-structured interviews conducted with SANBI staff that have played an important role in biodiversity mainstreaming and policy advice practice. These interviews were recorded and transcribed (see *Annexure 1: Interviewees, round 1*).
- A further information gathering exercise as part of the Policy Advice Directorate’s strategic planning session, wherein questions that arose through the data collection phase were discussed.
This current document is intended specifically for internal use, as a basis for the upcoming in-depth assessment of the current status of policy advice and mainstreaming practice. The comprehensive assessment will also expand to include semi-structured interviews with external stakeholders who have been key partners in policy advice and biodiversity mainstreaming work, as well as further focus group consultations.

**Structure of the report**

This initial assessment report consists of six parts with the following content:

**Part 1** gives an overview of the aims of the policy assessment in the context of Cluster 3 of the Living Catchments Project.

**Part 2** explains SANBI’s policy advise mandate and the skillset required for a policy advise role.

**Part 3** defines the concept of “biodiversity mainstreaming” and explains why it is important.

**Part 4** tells the story of SANBI’s policy advice journey over the last 15 years, and highlights some of the most significant achievements.

**Part 5** draws on three case studies that demonstrate how SANBI has used biodiversity mainstreaming to influence water policy in South Africa.

**Part 6** provides recommendations for future comprehensive assessment of SANBI’s biodiversity mainstreaming and/or policy advice practice.
PART 2: SANBI’s role and mandate to provide policy advice

SANBI’s legislative and policy mandate

The South African National Biodiversity Institute (SANBI) was established under the National Environmental Management: Biodiversity Act 10 of 2004, which sets out the general powers and functions of the Institute. Most of the functions relate to the generation, gathering, storing, processing, interpreting and making available information on biodiversity. However, there are also functions that explicitly require SANBI to give biodiversity policy advice. Under the Act, SANBI has an obligation to monitor and report regularly on the status of the country’s biodiversity. Furthermore, SANBI “may act as an advisory and consultative body on matters relating to biodiversity to organs of state and other biodiversity stakeholders”. SANBI is also obliged to support the state in providing for the management and conservation of the full extent of South Africa’s biodiversity (including ecosystems and species), the sustainable use of indigenous biological resources, the fair and equitable sharing of benefits in relation to bioprospecting, the implementation of international environmental laws pertaining to biodiversity, and the state’s duty to ensure that there is co-operative governance in biodiversity management and conservation. In light of these functions, SANBI is thus well-placed to support the Department of Environment, Forestry and Fisheries so that it is able to create environmental policies that safeguard the biodiversity of the country.

As well as its legislated mandate under the Biodiversity Act, SANBI is also given a number of tasks and responsibilities relating to policy advice through various plans, strategies and regulations (Figure 1), including:

- Threatened or Protected Species Regulations, 2007¹ (TOPS Regulations)
- Convention on the International Trade in Endangered Species Regulations, 2010² (CITES Regulations)
- Alien and Invasive Species Regulations, 2014³ (A&IS Regulations)
- Guideline for the determination of bioregions and the preparation of and publication of bioregional plans, 2009⁴ (Bioregional Plans Guideline)
- Norms and standards for biodiversity management plans for ecosystems, 2014⁵ (BMP-E Norms and Standards)
- National Biodiversity Framework, 2009⁶ (NBF)

¹ Published under Government Notice GN R152 in Government Gazette 29657 of 23 February 2007 (TOPS Regulations).
² Published under Government Notice R173 in Government Gazette 33002 of 5 March 2010 (CITES Regulations).
³ Published under Government Notice R598 in Government Gazette 37885 of 1 April 2014 (A&IS Regulations).
⁴ Published under Government Notice No. 291 in Government Gazette 32006 of 16 March 2009 (Bioregional Plans Guideline).
⁵ Published under Government Notice No. 83 in Government Gazette 37302 of 7 February 2014 (BMP-E Norms and Standards).
⁶ Published under Government Notice No. 813 in Government Gazette 32474 of 3 August 2009 (BMF).
- National Climate Change Response White Paper, 2011 (NCCRWP)
- National Development Plan 2030 (NDP)

Figure 1: SANBI’s functions in terms of the Biodiversity Act and its regulations.¹⁰

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¹⁰ SANBI Mandate review 2019
For the sake of simplicity, SANBI’s policy advice mandate is summarised below under thematic categories:

**Bioregional plans and systematic biodiversity planning**

The Biodiversity Act makes provision for bioregional plans that are a spatial representation of the occurrence of biodiversity, an indication of its importance and a plan for the conservation of biodiversity in a bioregion. SANBI plays a central role in the development, implementation and review of bioregional plans. SANBI assists organs of state to develop bioregional plans that meet the legislative requirements for those plans. The advice may include what the policy implications of bioregional plans are. SANBI also chairs a panel for the review of draft bioregional plans. The advice of the review panel often includes the policy implications of the adoption of bioregional plans and how to best ensure that bioregional plans are implemented. Bioregional plans must be reviewed by relevant organs of state at least every five years. SANBI is also required to give policy advice when bioregional plans are reviewed. Regarding the implementation of bioregional plans, SANBI may also assist organs of state to align their planning instruments, such as municipalities’ Integrated Development Plans, with applicable bioregional plans as required by the Biodiversity Act.

The Bioregional Plan Guideline recommends that bioregional plans are guided by Critical Biodiversity Area Maps (CBA Maps) that are made available on SANBI’s BGIS website. CBA Maps are developed using a standard systematic biodiversity planning methodology that was developed by South African biodiversity planners under SANBI’s leadership. SANBI also gives advice to other organs of state on how to best apply the standard methodology and its policy implications to organs of state. SANBI is required in terms of the National Biodiversity Framework to play a leading role in biodiversity planning. See *Spatial biodiversity planning*.

**Ecosystems and species**

Under the Biodiversity Act, SANBI gives policy advice on the development and implementation of legislative and other mechanisms for the conservation of threatened or protected species and ecosystems. SANBI has assisted the Minister with the development of both the list of threatened and protected species and the list of threatened terrestrial ecosystems, and the subsequent amendments to these lists. It also assists the Minister and other relevant organs of state with implementing provisions relating to the conservation of those species or ecosystems. SANBI currently chairs the scientific authority for CITES, an intergovernmental body that has been set up for the purposes of making recommendations to the Minister on the trade in endangered species. SANBI is also required to give advice to the Minister or other relevant organs of state if a decision has to be made regarding threatened or protected species or ecosystems. Its advice is based on the biodiversity information SANBI is required to collect, generate, process, coordinate and disseminate. SANBI also led the process for developing the Norms and Standards of Biodiversity Management Plans for Ecosystems.

**Alien and invasive species**

SANBI also gives guidance to the Minister and other organs of state who are charged with implementing the provisions of the Biodiversity Act relating to alien and invasive species. SANBI has constituted the Alien Species Risk Assessment and Review Panel which deals with conducting and reviewing risk assessments in relation to
permit applications for activities that involve alien and invasive species. SANBI further plays an important role in co-ordinating programmes for the prevention, control and eradication of listed invasive species and may assist municipalities to incorporate invasive species monitoring, control and eradication plans into their Integrated Development Plans.

Ecological infrastructure

“Ecological infrastructure” is a more recent term that is not mentioned in the Biodiversity Act or its regulations. However, the National Biodiversity Framework explicitly mentions ecological infrastructure and requires SANBI to take the lead on most of the action items under the strategic objective “investments in ecological infrastructure enhance resilience and ensure benefits to society”. The SANBI-led Ecological Infrastructure for Water Security Project (EI4WS) is an example of the work that SANBI is currently doing to further this strategic objective (See Ecological infrastructure).

Climate change

SANBI is accredited as a direct access entity for the Green Climate Fund and as a national implementing entity for the Adaptation Fund. It therefore plays an active role in climate change adaptation efforts in South Africa. It gives advice to the Minister and other organs of state on matters pertaining to climate change adaptation. SANBI is further required to lead on a national and regional research programme to scope sectoral adaptation requirements and costs and identify adaptation strategies with cross-sectoral linkages and benefits, including an assessment of climate change vulnerabilities in the sub-region, with a detailed scenario planning process to define potential sub-regional response strategies.

Protected areas and biodiversity stewardship

SANBI must advise the Minister on the declaration, management, or development in, national protected areas when requested. SANBI has in the past advised the Minister on the declaration of several Marine Protected Areas. The National Development Plan and the National Biodiversity Framework also task SANBI with assisting with development of a protected areas expansion strategy, and in supporting biodiversity stewardship as a mechanism for protected area expansion. SANBI currently facilitates two biodiversity stewardship communities of practice, namely the Biodiversity Stewardship Technical Working Group and the Biodiversity Stewardship Legal Reference Group. SANBI also led the development of the Biodiversity Stewardship Guideline and is assisting with the development of a biodiversity stewardship policy.

Biodiversity mainstreaming

The task of mainstreaming biodiversity considerations into policies, strategies and practices of a range of sectors is allocated to SANBI in the National Biodiversity Strategy and Action Plan, as well as the National Biodiversity Framework. As part of this function, SANBI must develop and maintain science-based biodiversity tools to inform planning and decision-making, integrating the value of biodiversity into national accounting and reporting systems. That function also entails incorporating biodiversity conservation objectives into key production sectors and catchment management agencies to minimise loss and degradation of biodiversity. The National Biodiversity
Framework requires SANBI to make the case for the value of biodiversity as a cornerstone of sustainable development. In terms of the Biodiversity Act, SANBI may also coordinate and implement programmes involving civil society for the conservation and sustainable use of indigenous biological resources. SANBI has led various programmes funded by the Global Environment Facility (GEF) in this regard. The Biodiversity Land Use Project and the Ecological Infrastructure for Water Security Project, are two such projects that are currently underway, and involve civil society.

**SANBI’s role as a biodiversity institute**

SANBI is a knowledge-based institution and operates at the interface between research, policy and implementation, linking biodiversity science with government and with society (Figure 2). Its function is to ensure that the best available scientific evidence is used to inform policy and decision-making. South Africa is one of the few countries with a biodiversity institute that is able to play this role of a bridging agent at the boundary between science and policy. SANBI plays a leadership role in generating, co-ordinating and interpreting the knowledge and evidence required to support and develop policies and decisions in support of better management and conservation of South Africa’s biodiversity assets and ecological infrastructure. SANBI also connects biodiversity science with society by encouraging public involvement in science. SANBI brings biodiversity understanding to the broader public through citizen science and biodiversity education projects that are facilitated through the botanical and zoological gardens.

Figure 2: SANBI’s role as a biodiversity institute, linking biodiversity science with government departments and society.
SANBI’s corporate structure for providing policy advice

SANBI’s functions that are focussed on scientific research and its application are grouped into a single branch, known as the **Biodiversity Science and Policy Advice Branch**. This branch conducts biodiversity data collection, information management, research, assessment, monitoring and policy advice.

Within this branch is the **Biodiversity Information and Policy Advice Division (BIPA)**. This division leads Programme 5 of SANBI’s work: “to provide biodiversity policy advice and access to biodiversity information; and support for climate change adaptation”. Programme 5 facilitates the translation of South Africa’s excellent biodiversity science into policy and decision-making. This is done within the context of South Africa’s urgent development imperatives, using biodiversity science to understand how the management and sustainable use of biodiversity and healthy intact ecosystems can maintain, enhance and deliver benefits to society. As noted by BIPA’s Chief Director, Ms Deshni Pillay: “Broadly, we work in the sustainable development realm, that nexus of sustainable development that is about balancing the developmental needs and biodiversity needs”. The programme is at the frontline of SANBI’s efforts to influence human wellbeing, improve service delivery, create jobs and adapt to climate change.

Giving policy advice is a function across the whole of the BIPA Division, and to varying degrees across the entire Branch. However, the **Policy Advice Directorate** is most directly tasked with ensuring that all policy advice provided by SANBI is well-founded in science, coherent and practical.

The role of a policy advice practitioner

Many of the staff within the BIPA Division of SANBI, and the Branch more broadly, have to perform some degree of a policy advice role within their day-to-day work. Staff who were interviewed revealed that most view themselves as having at least some policy advise functions. This is because almost all science, research and information management will have important implications for government policy. This does mean, however, that a policy advice role is not limited to those staff members with strong policy experience or those whose job descriptions are directly focussed on policy. Many other staff members also have to develop the unique skillset required for providing policy advice and engaging in biodiversity mainstreaming activities.

The past few years have seen a series of events where SANBI colleagues engaged in reflective practices to better understand their own work and to clearly articulate their role. In one such workshop, the required capabilities of a policy advice practitioner were discussed and extracted (Figure 3):

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14 SANBI Capabilities of BIPA staff
Figure 3: The ideal capabilities of a policy advice practitioner.

Within the SANBI context, policy advice often goes hand in hand with biodiversity mainstreaming as a set of closely related but distinct practices. The vast majority of our biodiversity mainstreaming work includes an element of policy advice. The role of a policy advice and mainstreaming practitioner is dynamic and multi-faceted. It requires the practitioner to be flexible and able to seize opportunities when they present themselves to further the uptake of their work. Said Dr Kerry Sink, Head of SANBI’s Marine Unit “The thing with policy work is that you really need to be nimble… you are constantly reading the situation and adjusting. It is not the same every day…”.

It also requires that a practitioner is self-organising and able to prioritise their work effectively. Policy advice practitioners often require strong interpersonal skills, so as to gather information and engage both within and outside of their institution. Dr Sink continued: “…when you are trying to make a change in a system, keeping being ready and keeping building your case is essential, because a hot moment will come for implementation. So being ready is so important. That readiness is not just science, a big part of that readiness in our case was stakeholder relationships”.

Policy advice requires both a good understanding of the scientific and technical content, the social process skills needed to take this content into policy, and a thorough understanding of the policy landscape (Figure 4). The content, context and social processes are often completely inter-linked and cannot be uncoupled. During interviews with SANBI staff, it was made clear that social processing skills should not only be held by certain
people in an institution (Recommendation 3: Investigate roles and capacity for biodiversity mainstreaming). Content workers also need to know how to conduct social processes. Because providing policy advice is a social process, the individual practitioner becomes very important. It is a very personal undertaking because it is often based on individual engagements, relationships and trust. However, the combination of strong content knowledge, a thorough understanding of the context that technical information is being fed in to, and excellent social process skills is rare. Ms Aimee Ginsberg, a consultant who has worked closely with SANBI over many years and is currently contracted as Programme Manager on a SANBI led Natural Capital Accounting Project, had this to say of policy advice and biodiversity mainstreaming practitioners: “The people who are attracted to this work, are people who are attracted to the challenge. They are interested in doing more than their jobs. I think that there’s a quality of people who are attracted to this very innovative space that is towards a very public good”.

A very important skill for a policy advice practitioner is the ability to regularly record, report and reflect on progress. The recording of what has been done, what has been achieved, and what has been learnt is necessary to build-up an effective institutional approach to policy advice. It is also important to share this learning so as to grow the community of policy advice practitioners and ensure that new entrants can benefit from the previous experience of others. The final assessment will form the most comprehensive attempt at surfacing lessons learnt that SANBI has undertaken to date.
PART 3: Defining biodiversity mainstreaming

*Definition of biodiversity mainstreaming*

The context for biodiversity mainstreaming emerged from the 1992 Rio conference that launched the Convention on Biological Diversity (CBD). Article 6(b) of the Convention states that parties shall: "Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies."  

The Global Environmental Facility, which has long been a principal international funder for biodiversity mainstreaming initiatives, has developed the following definition of biodiversity mainstreaming:

> "Biodiversity mainstreaming is the process of embedding biodiversity considerations into policies, strategies and practices of key public and private actors that impact or rely on biodiversity, so that biodiversity is conserved, and sustainably used, both locally and globally."  

The ultimate goal of biodiversity mainstreaming is to integrate biodiversity conservation and sustainable use principles into all human behaviour. Biodiversity mainstreaming is an action intended to encourage biodiversity considerations to be taken up into development and economic policies. If biodiversity information is accepted and used, then mainstreaming is successful because it leads to changes in decisions and behaviour. Biodiversity mainstreaming involves working with other sectors and industries to improve biodiversity management in their day-to-day business. It is the act of taking biodiversity information and working with other sectors to help them make better decisions around activities that impact on biodiversity.

As outlined by Dr Andrew Skowno, lead of SANBIs National Biodiversity Assessment: “Biodiversity mainstreaming is a hard thing to define, basically there are a huge number of decisions that need to be made in our world whether it’s natural resource management, whether it’s direct conservation and protection that require knowledge of biodiversity – where it is, where it’s special, what impacts it badly, what doesn’t impact it badly – so that we can make the decisions on sustainable development, sustainable use, protection and conservation projects. And so, mainstreaming of biodiversity for me means getting the right information out there so that biodiversity can be considered in this huge plethora of environmental decisions that get made every day”.

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There is no standardised way of doing biodiversity mainstreaming, and it was clear from feedback from all interview subjects that there should not be. The manner in which biodiversity mainstreaming should happen depends largely on context, on the information concerned, the sectors involved, the local policy situation and the stakeholders that must be included. As expressed by Ms Ginsberg: “for each project we need to take the time to understand who we need to be in order to do the work in the way we need to do it”. Methods for biodiversity mainstreaming are varied, but could include the development of informational resources, strategies or plans, decision-support tools, informational repositories, online tools, management structures, communications campaigns, certification schemes, administrative processes, communities of practice, business networks, advocacy and many more. It is often very difficult to measure the success or impact of biodiversity mainstreaming interventions as these are usually long-term and focus on changes of behaviour and processes over time (Recommendation 5: Investigate ways to measure biodiversity mainstreaming success).

**Target audience**

Biodiversity mainstreaming involves getting the needs for biodiversity brought to the attention of people who actually make decisions that affect biodiversity. A primary biodiversity mainstreaming target would be development sectors that have a large impact on biodiversity. Typically, these have included agriculture, mining and forestry. Mr Mahlodi Tau, currently Director of the Biodiversity Mainstreaming Directorate at SANBI, was involved in the Grasslands Project and had this to say: “We were constantly being told that biodiversity is not the mandate of the sectors that we were trying to build relationships with. This is when the need to make the case for biodiversity was identified. This was a turning point because we were saying that the National Biodiversity Assessment is telling us about biodiversity loss, threatened species nearing extinction, etc. – but that language does not hold any meaning for other sectors outside biodiversity.”

However, as more information is brought to light about the ways in which biodiversity is being threatened, there is potential to expand the scope of biodiversity mainstreaming to engage with other sectors. For example, SANBI may be well placed to provide the Department of Transport with spatial information so that it avoids establishing a road or port in a biodiversity priority area. Our interviewees provided many other examples of innovative biodiversity mainstreaming target audiences that could be sought.

**Why is biodiversity mainstreaming important?**

Biodiversity mainstreaming is important because it works towards conserving biodiversity outside of formal protected areas, across the landscapes in which people live and work. By doing so, it works to directly address the activities that are causing the greatest loss of biodiversity. Biodiversity mainstreaming is especially important in a developing country context. Developing countries generally still have large areas of remaining biodiversity, but

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limited resources to protect these and numerous other social priorities. In these countries, government often requires support to determine how to achieve development sustainably. In a developing country, there is such scope for biodiversity mainstreaming work to be more supportive of development. The focus on maintaining well-functioning water related ecological infrastructure that supports development imperatives is at the heart of SANBIs work in to the built and ecological infrastructure nexus. Said Dr Sink: “The only way to keep things well managed in the matrix of land and seascapes is to have mainstreaming work happening”

It is recognised globally that the loss of biodiversity will not be halted unless biodiversity is mainstreamed across all sectors of the economy and industry. Thus, biodiversity mainstreaming is a central theme of various global biodiversity and development goals, which often bind governments in terms of international law, treaties and conventions. For example, biodiversity mainstreaming is the focus of Strategic Goal A of the Convention on Biological Diversity’s Strategic Plan for Biodiversity 2011–2020: “Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society” and its four associated Aichi Biodiversity Targets. Biodiversity mainstreaming will also feature prominently in the new ‘post-2020’ framework that succeeds this strategy. For South Africa to take its place among the international community, it has to acknowledge that biodiversity mainstreaming is a global priority.

Related concepts

Over the course of this assessment, it became clear that there are several concepts that are closely related to biodiversity mainstreaming (Recommendation 1: Define the scope of the evaluation). These are often spoken of interchangeably with biodiversity mainstreaming, but may have slightly different meanings. For clarity, an initial attempt was made to define the differing scope of these concepts (Figure 5). However, all of these concepts are inter-related and may legitimately overlap. A strategy to ensure that biodiversity considerations are taken more seriously across society may involve use of all of these tactics.

“Biodiversity mainstreaming” (defined above) is the integration of biodiversity considerations in the policies, plans and decisions of other sectors, especially those whose activities impact on biodiversity.

“Policy advice” is the provision of strategic and technical input on biodiversity-related aspects of policy and legislation, either within the biodiversity sector or focused on other sectors whose policy and legislation impacts on biodiversity. Policy advice that occurs within the biodiversity sector may not be considered biodiversity mainstreaming. Policy advice tends to be directed towards the public sector and formal government structures. While it is possible to provide policy advice into industry, this advice is more commonly presented in the form of guidelines and best-practice examples.

“Making the case” for biodiversity means conveying the importance of managing and conserving biodiversity to a broad audience, to illicit support and action. The phrase “making the case for biodiversity” derives from a SANBI-led market research project that aimed to better understand the target audience and develop an effective communications strategy for the biodiversity sector.\(^{20}\) See *Making the case for biodiversity*.

Making the case involves marketing and communication, and is essentially a lobbying tool. Making the case for biodiversity is likely to require different communications framing in different contexts. In South Africa, it has been shown that biodiversity mainstreaming often requires communicating the benefits of biodiversity for people, both from a rational and an emotional perspective, as well as the availability of practical tools for action (see Annexure 2: *Report from the Making the Case for Biodiversity project*).

Figure 5: The relationship between biodiversity mainstreaming and related concepts of ‘policy advice’ and ‘making the case’ for biodiversity.

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PART 4: SANBI’s biodiversity mainstreaming story

Development of SANBI’s biodiversity mainstreaming approach

Biodiversity mainstreaming is a tactic that SANBI has been developing and refining for the past 15 years to meaningfully take biodiversity science into other government sectors and industries. Consequently, there is a wide range of work that has been conducted under the banner of ‘biodiversity mainstreaming’, including many engagements across the mining, forestry, agriculture, municipal, water, fisheries and other sectors. The scope of these activities is vast and somewhat sprawling across numerous projects, programmes, initiatives and engagements that have occurred within different SANBI divisions over this time. As a result, it is difficult to capture the full extent of SANBI’s biodiversity mainstreaming efforts (Recommendation 2: Record biodiversity mainstreaming interventions).

For the purposes of this initial assessment, some of the primary milestones in the biodiversity mainstreaming history at SANBI will be summarised, drawing on the 2017 self-assessment report of the SANBI Biodiversity Science and Policy Advice branch review\(^\text{21}\), the 2019 SANBI mandate review\(^\text{22}\) and various other related resources. The comprehensive version of this assessment will expand this history to include a full timeline of SANBI’s water-related biodiversity mainstreaming journey to date.

Bioregional programmes

Much of SANBI’s biodiversity mainstreaming work was initiated through its bioregional programmes during the years 2003-2015 (Figure 6)\(^\text{23}\). The bioregional programmes were multi-sectoral partnerships that aimed to secure the conservation of priority biodiversity and make links with socio-economic development. They were generally made up of the co-ordination of a variety of site-based projects involving government departments, non-governmental organisations and civil society. The bioregional programmes were largely funded through donor funding from large international donors like the Global Environmental Facility and Critical Ecosystem Partnership Fund. These programmes operated in priority biomes or ecosystems identified as being under threat.

\(^{21}\) SANBI Biodiversity Science and Policy Advice Branch Review: Self-assessment report 2017
\(^{22}\) SANBI Mandate review 2019
\(^{23}\) SANBI Biodiversity Science and Policy Advice Branch Review: Self-assessment report 2017
The bioregional programmes included:

- Succulent Karoo Ecosystem Programme (SKEP) (2003 – 2008)
- Grasslands Programme (2008 – 2014)

Figure 6: Map of SANBI’s bioregional programmes and landscape initiatives.

The Cape Action for People and the Environment (CAPE) programme was arguably the start of SANBI’s intentional biodiversity mainstreaming efforts. CAPE is a 20-year partnership programme between government and civil society. Its aim is to ensure that the biodiversity of the Cape Floristic Region is conserved, restored, effectively managed and sustainably utilised to deliver significant benefits to the people of the region in a way that is embraced by local communities and endorsed by government. It was during the CAPE programme that the concept arose of taking science into action through the co-ordinated involvement of multiple stakeholders. Ms Mandy Barnett, currently the Chief Director of SANBI’s Adaptation, Policy and Resourcing Division, explained: “CAPE was designed as a mainstreaming project, the first mainstreaming project. So, the purpose of CAPE was
to recognise that biodiversity and ecosystem services was being eroded by … pollution, invasive aliens, poor planning etc. CAPE came in with eight program objectives to [address] this. CAPE also led to the development of Biodiversity GIS (BGIS). It was the first time we said, how about we map this stuff in a way that the planners could understand? How about we get private land owners to be part of this conservation effort? Stewardship was born. Quite a lot of what we’re seeing today stems from CAPE”.

The CAPE programme was guided by a set of fine-scale biodiversity planning maps, the first ever produced at a municipal level. This was done under the auspices of the GEF-funded Biodiversity Conservation and Sustainable Development project. Mr. Jeffrey Manual, the Director of SANBI’s Biodiversity Information Management and Planning Directorate, had this to say: “A key component of the Biodiversity Conservation and Sustainable Development project included biodiversity spatial planning. Component 5 of the project was quite big and it invested in producing [Critical Biodiversity Area] maps. [Partly as a result], the Biodiversity Planning Forum was established in 2005 and 20 people attended. It legitimised SANBI’s role to lead the [biodiversity planning community of practice]. SANBI was empowered to do planning forums and promote planning. [The project] added fine-scale plans which helped to convince land-users.”

This was the instigator of the “Putting Biodiversity Plans to Work” project that aimed to mainstream the use of systematic conservation plans in the land-use planning and decision-making system to curtail habitat loss in priority areas for biodiversity conservation24. Ms Nancy Job, current head of SANBI’s Freshwater Biodiversity Unit, was a consultant assisting SANBI at the time. She said this of the project: “The Putting Plans to Work was right in the early days of conservation planning in 2004 – 2006. The purpose of the project was to work in the Cape Floristic Region and to take the emerging conservation planning type products, at the time there was a recent study on Renosterveld, and to then work with municipalities to start to get that into their planning. What we discovered was that partners were part of that story. It wasn’t only about working with municipalities but it’s also about who supports that work. Its Agriculture, Environmental Affairs, Cape Nature, stewardship… so we ended up working with all of those partners in order to mainstream. It was a mainstreaming project”.

CAPE also piloted some of South Africa’s first ever interventions to mainstream biodiversity into business, including engagements with the rooibos, flower, potato, wine and citrus sectors. The biodiversity stewardship mechanism that was piloted under CAPE has been taken up into policy and is now a cornerstone of the National Protected Areas Expansion Strategy.

Initially, CAPE had a strong governance structure with dedicated co-ordinators within SANBI. During the course of the programme, multi-partner stakeholder forums created opportunities for people to get to know each other and make connections. As a result, the co-ordination efforts required to maintain the programme have weakened over time and been replaced with enduring partnerships among stakeholders.

24 CEPF Putting Biodiversity Plans to Work. Final completion report 2006
The National Grasslands Biodiversity Programme (2008 – 2014) was a dedicated 5-year biodiversity mainstreaming programme. It recognised that the severely threatened grasslands biome of South Africa occurred primarily within highly productive parts of the country, in terms of agriculture, forestry, urban development and mining. To protect the biodiversity in the grasslands, one would have to work directly with these production sectors. The Grasslands Programme was funded by the Global Environmental Facility and it worked with partners to mainstream biodiversity by influencing policies and regulations, strengthening institutional capacity, and catalysing pilot projects to demonstrate biodiversity gains across sectors. The Grasslands Programme’s contribution towards biodiversity mainstreaming was acknowledged during an international workshop of the Scientific and Technical Advisory Panel of the GEF in October 2013.

The Grasslands Programme made a number of biodiversity mainstreaming advances. It introduced the concept of investing in ecological infrastructure into national policy and planning (see Ecological infrastructure). The Grasslands Programme helped to develop a national standard for Forest Stewardship Council certification. During the course of the programme, a number of valuable knowledge resources were published, including the Grassland Ecosystem Guidelines, Grazing and Burning Guideline, and Biodiversity Mainstreaming Toolbox. The Mining and Biodiversity Guideline was a significant step towards biodiversity mainstreaming into the historically antagonistic mining sector. The Grasslands Programme also supported the proclamation of South Africa’s first Protected Environments under the biodiversity stewardship programme, these being protected areas that also embrace other compatible land-uses.

Since 2012 SANBI has moved from co-ordinating bioregional programmes within specific biomes or ecosystems to using a broader range of approaches to work at the landscape scale with a focus on working into production sectors. Many of the principles and ways of working that were established through the bioregional programmes have been incorporated into the co-ordination of these newer programmes of work, for example, co-ordinating the uMngeni Ecological Infrastructure Partnership (UEIP) and the Biodiversity and Land Use Project.

Said Ms Pillay about the Grasslands Programme: “…it was the Grasslands Programme [that moved] us from bioregional programs and focusing on biomes, to looking at mainstreaming. We were not focusing on geographic

areas anymore. We were accepting that biodiversity is here. Development is here. And we need to find … balance … and it is around sustainable development. We can only get it done if we decide to mainstream… so there is conscious decision making around the environment, around development, around biodiversity. And specifically drawing on how we did it in Grasslands. I think 60 percent of the country is grasslands, underpinning our major production sectors, as well as big landscapes, water sources and many natural resources. What do we do about it? We don't create protected areas. We actually work with the production sectors. And we start looking at how we change their practice to how they start integrating the landscape, what it has to offer into their practice. That was the big change. And it was [the Grasslands Programme] that actually did that from my opinion.”

Making the case for biodiversity

Arising from the experience of the CAPE and Grasslands Programmes, was the recognition that the messages of the biodiversity sector where often dismissed or ignored in favour of other government priorities. Historically, messages pertaining to biodiversity were couched in negative terms and focussed on the dangers of biodiversity loss. It became evident that such messages of doom-and-gloom were not effective in changing people’s behaviour. This catalysed an initiative called “Making the Case for Biodiversity” in 2010.

Ms Mandy Barnett, who was a Program Developer and later Director of CAPE, said of the lessons learnt out of CAPE: “That's when Making the Case was born. We were at the point of, what's going on here? We do all this cool stuff. We've got all this amazing science. All the scientists are excited about all of this…but no one cares! Making the case showed us why no one cared because you're talking messages of doom and gloom, making it complicated and debating scientific detail and we don't package the work in a way that resonates with the priorities of government. What's that? Jobs. What's that? Economic development. What's that? Investment in infrastructure. Let's call ourselves ecological infrastructure. So that's that. That's where all these things come from. So the coining of the term ecological infrastructure was all about making the biodiversity, conservation, restoration, stewardship efforts more palatable to especially Treasury and municipal infrastructure planners and came with this idea that if you would recognise ecological infrastructure as an asset like a bridge or a dam or a sewage treatment works, you'll recognise you have to continue to invest in it. Whereas before all of that (or to a degree still, actually) the idea was that it there but I don't have to do anything about it.” See

Making The Case for Biodiversity was a market research process, implemented in partnership with the Department of Environmental Affairs, which investigated messaging from the biodiversity sector and tested the response from target audiences. The communications message that received the highest ranking was the concept of biodiversity as a ‘national asset’. This frame places biodiversity as an equivalent national priority to other economic and social imperatives. Other messages that ranked highly were the emotional message of

biodiversity as ‘our children’s legacy’ and the action-based ‘practical solutions’. Based on the findings, a communications strategy was developed that emphasises the economic, emotional and practical value propositions for biodiversity (Figure 7)²⁸.

Figure 7: The core message of the ‘Making the case for biodiversity’ communications strategy.

As a result, SANBI repositioned its communications messages to show how biodiversity is essential to service delivery and job creation. This process introduced a new communications language for the biodiversity sector, focussed on delivering a value proposition for biodiversity. A key turning point occurred when SANBI started to “make the case” for biodiversity. This change in approach to how SANBI packaged its scientific information was effective because it did not seek to prohibit development completely, but was rather used to persuade departments to promote sustainable development. SANBI began to challenge the perception that biodiversity conservation and development were competing interests that could not be advanced simultaneously. The communications strategy has already resulted in greater political and economic attention towards biodiversity in South Africa.

Spatial biodiversity planning

Support towards spatial biodiversity planning has been one of SANBI’s most long running and successful forms of biodiversity mainstreaming, beginning with the experience in the CAPE programme, and extending through a number of further projects and initiatives. South Africa is a mega-diverse country with high levels of biodiversity distributed unevenly across the landscape and seascape. It is therefore vital to have a defensible and spatially explicit approach, based on the best available science, to identify geographic areas that are most important and

require the most urgent action. In the last 15 years, there has been tremendous progress in developing biodiversity planning products that are widely used to inform planning and decision-making in a range of sectors, including protected area expansion, land-use planning, environmental impact assessment, classification of water resources, mining authorisations and more. South Africa is a global leader in biodiversity planning29.

SANBI has taken an important co-ordination role in directing the advancement of spatial biodiversity planning in South Africa30,31. Since 2004, SANBI has convened the Biodiversity Planning Forum, which is one of its longest running and most successful annual forums. The Biodiversity Planning Forum is the primary gathering for the spatial biodiversity planning ‘community of practice’, a diverse group of participants from a range of sectors (including government policymakers, conservation practitioners, researchers) that are all involved in identifying and applying biodiversity priority areas across the country. A key theme is ‘planning for implementation’ to ensure that spatial biodiversity planning products are appropriate for the policy and implementation context of end-users.

Dr Andrew Skowno explained: “SANBI is very much focused on developing the policies and developing that understanding with [the Department of Environment, Forestry and Fisheries], national government, about how we should be planning, how Critical Biodiversity Areas should be used, how threatened ecosystems should be used to the extent that they get mentioned in our listing notices. So national legislation mentions and has got tools for promoting conservation of biodiversity completely because of SANBI - 100 percent. But the actual CBA maps wasn’t ever really done by SANBI. So SANBI played a very, very important facilitator role, and guiding role in getting this concept of conservation planning embedded in decision making, and that is a gigantic achievement and it's been missing, hasn't been achieved anywhere else in the world, because the agencies tend to do the planning, they have a vested interest in the plan. SANBI was a perfect group to be promoting this because it actually wasn’t doing (the mapping), it's advocating the work coming from the province, so it had very strong provincial support.”

Spatial biodiversity plans underpin very many of the science-based tools and knowledge resources on which SANBI’s policy advice is based. For this reason, SANBI has taken numerous steps over the last 15-years to improve the consistency of spatial biodiversity plans, and advance the use of these plans in multi-sectoral planning and decision-making32. SANBI has also developed a range of best practice guidance with regards to biodiversity planning. These plans are now well-known as standardised, authoritative maps of biodiversity priorities, and are made freely available through SANBI’s BGIS website33. Spatial biodiversity plans, that apply

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31 SANBI Mandate review 2019
33 http://bgis.sanbi.org/
consistent methodology and use best-available science, are now available for all South African provinces (Figure 8). These are now routinely developed with the specific intention of informing land-use planning (or equivalent spatial planning in aquatic realms) and decision making in a range of sectors\textsuperscript{34}.

The mainstreaming of these maps into decision making processes has been a crucial part of the learning over the past 15 years. As noted by Ms Alex Marsh, a Policy Advisor in SANBI's Policy Directorate and co lead of one of the early sector plans that drew on systematic biodiversity planning: “Just having [Critical Biodiversity Area] maps which reflect critical biodiversity areas and threatened statuses and land cover data, all these layers that they reflect is only as good as that information being used in the relevant spaces to influence decision-making. So, having the CBA maps in Integrated Development Plans, in Spatial Development Plans, and in Spatial Development Frameworks which are municipal planning tools, has been a big step forward and similarly wherever it is used that is how we measure how effective our mainstreaming has been. It is not the existence of the map but it is where they are applied.”

\begin{figure}[h]
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\caption{Spatial biodiversity plans are now available for all of South Africa's provinces.}
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Ecological infrastructure

Emerging from the Grasslands Programme, and with the communications thinking prompted by the Making the Case for Biodiversity project, SANBI coined the term “ecological infrastructure” around 2012. Ecological infrastructure refers to naturally functioning ecosystems that generate or deliver valuable services to people, such as fresh water, climate regulation, soil formation and disaster risk reduction. Ecological infrastructure is the nature-based equivalent of built or hard infrastructure, and is just as important for providing services to people and underpinning socio-economic development. The use of the term “infrastructure” resonates with the country’s current focus on encouraging development through built infrastructure. As a result, the term quickly gained traction with engineers, development planners and government officials from the water and agriculture sectors. Through a series of national dialogues, SANBI mainstreamed the concept of investing in ecological infrastructure into policy and planning. Ecological infrastructure has gained particular attention within the water sector, where the links between healthy natural ecosystems in the catchments and provision of water as a benefit to people are so obviously aligned.

The concept of ecological infrastructure also highlights the links between ecosystems and built water infrastructure like dams. Poor catchment management upstream, such as overgrazing, illegal ploughing or draining wetlands, can create erosion that is washed downstream where it is deposited in dams, reducing their capacity over time. Investing in ecological infrastructure can lengthen the lifespan of existing built infrastructure and can sometimes reduce the need to build additional infrastructure.

The uMngeni catchment is an ideal location to demonstrate the principles of ecological infrastructure. The catchment shows evident deterioration that has directly led to poor provision of water services. An ecological infrastructure project in the uMngeni catchment was conceived through discussions between SANBI and the municipal leadership of Ethekwini Metro, specifically the department of water and sanitation. The municipality was experiencing severe water challenges, including both shortages of water and deterioration in water quality. Engineering solutions to these problems were becoming impracticable and the city was in search of alternative solutions. The result was the uMngeni Ecological Infrastructure Partnership, a collaboration between 23 organisations from government, academic institutions, water service authorities, industry and civil society, who are working together to foster ecological infrastructure investment in the uMngeni catchment.

Ecological infrastructure is also the focus for a $7.2 million GEF-funded project that is being executed by SANBI and was launched in 2018. The Ecological Infrastructure for Water Security (EI4WS) project aims to enhance organisational capacity and investment in ecological infrastructure to improve water security in two demonstration catchments, the Berg-Breede and the greater uMngeni catchments. The project will explore ways to unlock development finance for ecological infrastructure in these critical catchments. The project has the support of both the departments of Environmental Affairs, and Water and Sanitation, and will support the implementation of the National Water Resource Strategy. The project is implemented with the Development Bank of Southern Africa, a development finance institution with the ability to take ecological infrastructure into account in development
financing in a way that will show the return on investment in ecological infrastructure in terms of actual water-related benefits in South Africa. The EI4WS project is complementary to the Living Catchments Project. The two initiatives share many of the same goals and can build onto each other’s work to achieve more and make faster progress.

The concept of ecological infrastructure has prompted several recent successes in integrating biodiversity into water policy. The National Water Resource Strategy, revised in 2017, places strong emphasis on the importance of healthy freshwater ecosystems and their catchments for water security. This includes a focus on Strategic Water Source Areas. Recent updates to the national Water Pricing Strategy have also made provision for part of the revenue from water sales to be channelled to the management of water catchments.

**Literature summary of SANBI’s lessons in biodiversity mainstreaming**

Over the last 15-years, SANBI’s approach to biodiversity mainstreaming has been captured in a number of publications aimed at both academic and practitioner audiences. These represent a substantial amount of learning and practical experience from those who have been at the forefront of biodiversity mainstreaming (**Recommendation 4: Understand existing resources**). In the sections below, we summarise the main messages and lessons from some of the most relevant of these publications.

**Planning for living landscapes: Perspectives and lessons from South Africa (2003)**

“Planning for living landscapes” was one of the first attempts to capture South Africa’s, at that time, newly emerging techniques for conservation assessment and in particular to show how these may be adapted to improve implementation. The document was developed following a “lessons learnt” workshop of conservation planners. The booklet aimed to guide anyone who was embarking on a biodiversity planning project, or who wished to know more about the role that biodiversity planning can play in guiding conservation action. It culminated in a section focused on biodiversity mainstreaming, which aimed to show the ways in which an end-user product could be taken into action. It extracted two key lessons that can encourage the use of plans in land-use decisions and land-management practices that protect biodiversity in priority areas:

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• **Involving stakeholders as equal partners** in the development of a conservation strategy and action plan, lays a foundation for effective mainstreaming.

• **Successful outcomes on the ground** require continuous pressure by **champions who are involved in the planning and implementation phase**

**Designing Systematic Conservation Assessments that Promote Effective Implementation: Best Practice from South Africa (2006)**

This scientific paper was published in response to a perception internationally that conservation plans were not being used as they were intended – termed the “research-implementation gap”. The paper aimed to show that this was not the case in South Africa, where the community of practice were taking positive steps to bridge the gap and ensure that biodiversity plans were being implemented. The paper was based on a 3-day workshop of South African biodiversity planners, and it presented the key ‘ingredients’ that were necessary to move biodiversity plans into operation:

- Conduct a simple assessment even if data are limited
- Pursue goals of representation and persistence
- Integrate expert input and systematic techniques
- Gather and apply data useful to achieving your goals
- Set quantified targets
- Carefully recruit assessment teams
- Involve implementing organisations
- Involve the team in planning-process design
- Identify key stakeholders first
- Design a collaboration program with clear objectives
- Avoid broad, unfocused stakeholder workshops
- Make the case for nature
- Deliver assessment outputs as useful planning products
- Mainstream planning products into action

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Biodiversity for development (2010)\textsuperscript{37}

‘Biodiversity for Development’ is a book that was developed through the SANBI bioregional programmes. It aimed to distil lessons from South Africa’s landscape approach to conserving biodiversity. The landscape approach involves working both within and beyond the boundaries of protected areas, to manage a mosaic of land uses in order to deliver ecological, economic and social benefits. The book sets out the “people, products, process” approach to biodiversity mainstreaming (Figure 9). It also showcases biodiversity mainstreaming tools and mechanisms that have been applied successfully in South Africa, including the use of spatially explicit maps with guidelines, the provision of freely available resources online, and the nurturing of strong communities of practice.

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<th>Clear information</th>
<th>Raised awareness and capacity</th>
<th>Embedding in institutions</th>
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<tr>
<td>Biodiversity sector plans (maps of CAs and ESAs, and accompanying guidelines)</td>
<td>Building individual and institutional capacity</td>
<td>Influencing provincial and municipal policy</td>
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<td>Ecosystem guidelines for environmental assessment</td>
<td>Formal training</td>
<td>Incorporating biodiversity priority areas in statutory and multi-sectoral planning instruments (such as Spatial Development Frameworks)</td>
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<td>Tools for serving biodiversity information</td>
<td>Workplace-based mentorship and support</td>
<td>Ensuring that biodiversity priority areas are taken into account in regulation of land-use</td>
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Figure 9: The “people, products, process” elements of the mainstreaming strategy being applied by SANBI.

The United Nations Development Programme (UNDP) requested SANBI to develop this publication as a way of sharing South Africa’s experiences globally. It was launched in 2010 at the conference of the parties to the Convention on Biological Diversity in Nagoya, Japan. Based on this book the UNDP developed a training programme and rolled it out globally across their regional programmes. The book was also translated into French and is available for download.

**Mainstreaming biodiversity: Key principles from the Grasslands Programme (2013)**

The Grasslands Programme was a 5-year long project that enabled the practical testing of tools and approaches for biodiversity mainstreaming. Through various pilot projects, the programme and its partners were able to innovate and identify the most effective strategies. Constraints and opportunities across multiple sectors were identified, barriers overcome through adaptive management with partners, capacity strengthened through learning by doing, and in some cases, influenced public and private sector policies. During its close, the Grasslands Programme developed a short booklet to extract and share the lessons that had been learnt about biodiversity mainstreaming. It identified six main factors that were common when biodiversity was successfully mainstreamed into production sectors (Figure 10).
Biodiversity mainstreaming in South Africa’s production landscapes: lessons and achievements (2013)\textsuperscript{38}

This was a scientific paper presented at the International Grasslands Congress in Australia in 2013. The paper aimed to share the strategies that had been key to achieving successful biodiversity mainstreaming in the Grasslands Programme. Using examples from the mining industry, the paper again reiterated the six key ingredients for successful biodiversity mainstreaming mentioned above (Figure 10). It concluded that “competent leadership must help to identify and develop high quality tools in partnership with sector stakeholders. A good business case must be made for the conservation of biodiversity. Sector based discussion groups and training workshops help to increase capacity within both regulatory organisations and industry. Pilot projects test concepts that provide sound policy advice.”

Good news from the South: Biodiversity mainstreaming – A paradigm shift in conservation? (2014)

This opinion piece was published in the South African Journal of Science in 2014. It followed an international workshop of the Global Environmental Facility’s ‘Scientific and Technical Advisory Panel’ that met in Cape Town in 2013 to review progress in biodiversity mainstreaming. The article praises the work done on biodiversity mainstreaming in southern hemisphere countries like South Africa. It draws out several lessons that had emerged from the biodiversity mainstreaming projects funded by the GEF:

- good governance recognises the interdependence of healthy environments and healthy human societies
- sound geospatial, biophysical and socio-economic knowledge is essential to measure and negotiate the trade-offs between biodiversity and production
- strategies such as certification schemes help to address the fact that supply and demand are often geographically remote and commodity users are unaware of the biodiversity damage being caused
- innovative financial mechanisms are needed to ensure that biodiversity mainstreaming is self-sustaining

Key ingredients, challenges and lessons from biodiversity mainstreaming in South Africa: people, products, process (2016)

The Organisation for Economic Co-operation and Development commissioned SANBI to prepare this working paper detailing its biodiversity mainstreaming practice, an acknowledgement of South Africa’s experience in this regard. The paper used five case studies to portray the range of biodiversity mainstreaming activities that had occurred in the country: Land-use planning, the Mining and Biodiversity Guideline, the National Water Resource Strategy, uMgeni Ecological Infrastructure Partnership and the agriculture sector. Two of these case studies have particular relevance for the water sector. From these case studies, the paper then drew out the main challenges that had been experienced during biodiversity mainstreaming, including difficulties in project design, time, skills and measurement (Recommendation 5: Investigate ways to measure biodiversity mainstreaming success). Finally, the paper identified the lessons learnt in South Africa, including five factors that are often present in successful biodiversity mainstreaming initiatives and should be considered as fundamental requirements before initiating a biodiversity mainstreaming project:

- Good science: In every case, effective biodiversity mainstreaming is based on credible biodiversity science.
- Development objectives: Biodiversity mainstreaming initiatives work best if there are genuine links to development objectives in the country.
- Communication: While the mainstreaming products have an effect at a technocratic level, for a wider acceptance there needed to be a change of ‘hearts and minds’ to reposition biodiversity as an integral component of society and the economy (making the case for biodiversity).
- Working relationships: Much of the business of biodiversity mainstreaming is founded on strong interpersonal relationships, coupled with ongoing working relationships.
Windows of opportunity: Making full use of windows of opportunity, that can occur unexpectedly, can be a particularly effective strategy for biodiversity mainstreaming.

The paper concluded with a re-iteration of the ‘people, products, process’ approach to biodiversity mainstreaming (Figure 9).

**Bridging the research–implementation gap: Mainstreaming biodiversity into the South African mining sector (2018)**

This scientific paper discusses the development of the Mining and Biodiversity Guideline, which was a significant achievement in biodiversity mainstreaming that arose out of the Grasslands Programme. The Mining and Biodiversity Guideline is a resource intended to take the wealth of scientific biodiversity information available and ensure that it is appropriately used by the mining sector in a way that simultaneously reduces business risk for mines and improves biodiversity outcomes. The paper examines the development of the Guideline according to an academic framework for policy-relevant science that comprises credibility (having a sound scientific basis), salience (relevant to decision-making) and legitimacy (considers the values of other stakeholders). The paper concludes that the Mining and Biodiversity Guideline did meet many of these requirements for a policy-relevant biodiversity mainstreaming product, but acknowledged that “offering the best available science in a user-friendly, accessible format is one action among many that are required for successful mainstreaming of biodiversity.”

**Practical actions for applied systematic conservation planning (2019)**

This paper details how South African biodiversity planning has transitioned from an academic exercise developing new methods, to a well-developed practice embedded in the public sector. It gathers a database of more than 90 biodiversity plans that have been developed in the country over the last 3 decades, and analyses the changing characteristics of these plans. What is found is that important steps have been taken to improve implementation of biodiversity plans. Six broad actions are identified that have helped to take biodiversity plans from research to implementation:

- Expanding conservation planning from scientists to practitioners
- Building capacity and ownership in implementing agencies
- Creating opportunities to link with legislative processes
- Establishing a strong community of practice convened by a mandated institution
- Adopting implementation-focused methods and outputs
- Balancing standardisation with innovation

**Key successes in mainstreaming of biodiversity**

Over a 15-year history, SANBI has made many achievements in biodiversity mainstreaming, from small victories where biodiversity is gradually given greater attention, to more monumental gains where laws and policies have shifted significantly to incorporate biodiversity priorities. Again, the breadth of biodiversity mainstreaming work makes it difficult to fully measure and quantify what has been achieved (Recommendation 5: Investigate ways to measure biodiversity mainstreaming success).
The self-assessment report of the SANBI Biodiversity Science and Policy Advice branch is a useful reference. In 2017, this branch of SANBI underwent an external performance review process to recognise its achievements and confirm that its work remains relevant. The review was intended to form part of SANBI’s organisational learning process by informing current programmes and shaping new initiatives. Part of the review included a comprehensive self-assessment report that provided detailed information on the work of the various programmes over ten years. The self-assessment report identified the following as top achievements over the last ten years:

- **Influenced and supported protected area expansion:** SANBI developed the National Protected Area Expansion Strategy 2008 including spatial priority areas for protected area expansion focusing on under-protected ecosystems. SANBI supported the development of biodiversity stewardship as a cost-effective mechanism for protected area expansion.

- **Made a major contribution to implementing the Biodiversity Act and meeting South Africa’s obligations under the Convention on Biological Diversity:** SANBI developed the National Biodiversity Framework 2008 and contributed to the development and implementation of the suite of new tools required to give effect to the Biodiversity Act, such as the listing of threatened ecosystems, publication of bioregional plans, listing of invasive species, and establishment of the Scientific Authority for CITES.

- **Influenced national strategic planning:** SANBI’s science has been brought to bear in several strategic national processes, demonstrating the relevance of biodiversity beyond the environmental sector, as well as the credibility and usefulness of our science-based policy inputs. For example: SANBI’s analyses of spatial biodiversity priorities were used in several national Strategic Environmental Assessments. In the National Water Resource Strategy (2013) SANBI worked to integrate freshwater ecosystem priorities, including a focus on Strategic Water Source Areas as national ecological infrastructure assets for water security. SANBI’s mainstreaming programmes influenced the National Development Programme and Vision for 2030 which includes “programmes to conserve and rehabilitate ecosystems and biodiversity assets”.

- **Influenced environmental decision-making** through Environmental Impact Assessments (EIAs) and municipal land-use planning: A key strategy for conserving and managing biodiversity is avoiding further loss of natural habitat in biodiversity priority areas such as threatened ecosystems and Critical Biodiversity Areas (CBAs), by mainstreaming them in planning and decision-making in sectors that impact on biodiversity. SANBI developed a national list of threatened ecosystems. The direct link between listed ecosystems and EIA regulations means that developers and officials are obliged to take biodiversity into account...
account in the environmental authorisation process. SANBI’s work with provincial conservation authorities has ensured that consistent maps of CBAs based on sound science are available across the country. These maps are now routinely taken into account by municipalities in their Spatial Development Frameworks and Integrated Development Plans.

- **Influenced management and restoration of ecological infrastructure**: SANBI coined the term ecological infrastructure, which rapidly gained traction in a range of sectors such as water, agriculture and land-use planning. SANBI has developed spatial decision-support tools to prioritise ecosystem restoration work in partnership with landowners.

- **Shifted the discourse of the biodiversity sector to “biodiversity for development”**: SANBI’s work on making the case for biodiversity has led the way in shifting the discourse of South Africa’s biodiversity sector from a preoccupation with fear of loss to a focus on “hope of gain”, repositioning the biodiversity sector as a contributor to national development goals rather than a stumbling block for development. This has enabled us to engage with new audiences traditionally resistant to the message of the biodiversity sector, such as National Treasury, agriculture, municipalities, and the land reform sector.

- **Vastly improved the scope and scale of biodiversity data accessibility for a wide range of users**: SANBI has gathered data from within SANBI and from our network of partners, and placed it in integrated systems that are freely available online to a wide range of users. This is reflected in the use of SANBI’s information portals, such as the Biodiversity Advisor and BGIS, by hundreds of people every day.

- **Greatly increased collaboration in the biodiversity sector to amplify impact**: SANBI’s role as a convener and leader within the biodiversity sector has brought together a range of actors to increase collaboration, ensuring coherence and augmenting the effectiveness of individual efforts, often across traditional divides between the public, private and non-governmental sectors. Through SANBI’s interventions many institutions within the sector have been significantly strengthened. One important mechanism for this is communities of practice convened by SANBI. SANBI’s ability to facilitate complex social processes has played a key role in bridging the divide between science and policy, through engaging scientists, practitioners and implementers in the joint production of science-based tools and products that can be taken up easily in policy processes.

- **Demonstrated SANBI’s ability to manage multi-million-dollar partnership programmes**: SANBI has successfully secured and led a series of GEF projects worth a total of $45 million (~R 600 million). These large projects have allowed SANBI to scale-up our ability to develop, explore and pilot novel approaches for biodiversity mainstreaming into a range of strategic sectors. This in turn feeds into national policy work, ensuring that it is grounded in practical experience and realities.
For a broader, national perspective on biodiversity mainstreaming successes, South Africa’s reports to the Convention on Biological Diversity are a useful summary. Many of the Aichi Biodiversity Targets have a biodiversity mainstreaming focus, and South Africa reports directly on its progress towards these targets. In 2019, the latest country reports were used to extract some of South Africa’s biodiversity success stories into a short booklet. Many of the achievements listed owe at least part of their success to the biodiversity mainstreaming efforts of SANBI and its partners.

**PART 5: Biodiversity mainstreaming into the water sector: Case studies**

The purpose of this section is to give a view into what it takes to conduct biodiversity mainstreaming in a practical sense. It offers a narrative of what SANBI’s water-related policy advice practice has been and what it currently is, with the view to extracting lessons learnt over time.

The journey of mainstreaming biodiversity into the water sector is presented using three case studies from distinct milestone moments in the last 15 years. Across relatively equally spaced intervals, the National Spatial Biodiversity Assessment (2004), National Freshwater Ecosystems Priority Areas project (2011) and the Strategic Water Source Areas project (2013) show how SANBI’s biodiversity mainstreaming practice has matured and also how success necessarily builds on previous work. The reasoning for the choice of these three case studies is that they have particular significance for exploring our work in to the built infrastructure and water related ecological infrastructure nexus.

The National Spatial Biodiversity Assessment in 2004 was the first biodiversity assessment conducted across the whole country, using the most up-to-date spatial data that was available at the time. Biodiversity assessment methodology was more established for the terrestrial realm, but the NSBA insisted that freshwater and marine realms be given equal standing. This meant that the methods had to be adapted, and some new spatial datasets created, to assess freshwater ecosystem types. The results revealed that river ecosystems were highly threatened and poorly protected relative to terrestrial ecosystems. It also highlighted some substantial gaps in the spatial data available for freshwater ecosystems, such as the lack of a reliable wetlands dataset for the country.

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The NSBA drew attention to the fact that freshwater ecosystems were often neglected during biodiversity assessment and planning, particularly at a national-level, and that there had been no focussed work on freshwater ecosystems. This realisation prompted the National Freshwater Ecosystem Priority Areas project in 2011. The NFEPA project was therefore aimed at bringing emphasis to freshwater ecosystems, in terms of gathering biodiversity data, developing spatial datasets, refining assessment methodology and identifying priority freshwater ecosystems. The innovative NFEPA data layers that were developed for many years presented the best-available information on freshwater ecosystems at a national level, and were widely used across numerous applications.

One of the datasets produced during NFEPA was an initial attempt to map the areas of the country that supplied the most water. Known then as ‘high water yield areas’ it quickly became obvious that these areas were potentially very important from both a biodiversity and water security perspective. The Strategic Water Source Areas (2013) initiative was therefore initiated to more accurately define and map the areas of the country that were the major sources of the country’s water resources. The SWSAs are a strong biodiversity mainstreaming tool because they recognise a win-win opportunity: by keeping water catchments healthy, not only is biodiversity protected but at the same time people receive the benefits of better quantity and quality of water.

Case study 1: National Spatial Biodiversity Assessment (2004)\(^40\)

Setting the scene
During the early 2000s, the idea for the National Spatial Biodiversity Assessment arose out of the expanding biodiversity planning practice in South Africa. Conservation planning was a growing theme in international and academic spheres, where methods were being formalised and dedicated conservation planning software was becoming more widely available. The computational and technological ability to handle large spatial datasets was increasing. In South Africa, biodiversity planning had been relatively successfully applied as a biodiversity mainstreaming tool at smaller scales in the bioregional programmes (see Bioregional programmes). Evidence from the CAPE programme had shown that fine-scale maps of biodiversity priorities could be very useful in guiding conservation investment and had a lot of potential to inform land-use planning.

It became clear that the spatial data needed to conduct a biodiversity assessment at a national scale was becoming more readily available. Furthermore, it was realised that doing such an assessment across the whole country would provide a first nationwide snapshot of where biodiversity is found in South Africa, where it was threatened and where the most important priorities for conservation were. The NSBA incorporated the word ‘spatial’ in its title to emphasise that its innovation was a focus on the distribution of biodiversity across geographical areas, not just a list or description of biodiversity. A nationwide, spatial assessment of biodiversity would provide an authoritative reference for biodiversity information in the country. It would also provide biodiversity information that would be useful to respond to national and international reporting requirements.

**Objectives**

The NSBA was South Africa’s first national assessment of spatial priorities for conservation action in the terrestrial, river, estuarine and marine realms. It was hoped that it would be a call to action and a means of aligning the efforts of stakeholders involved in management of biodiversity.

The NSBA was intended to be an informational resource, not a direct tool for biodiversity mainstreaming. It was acknowledged that it could be a source of information for the National Biodiversity Strategy and Action Plan, and the National Biodiversity Framework, both of which were then under preparation. The NSBA would identify the geographic priority areas as a way of focussing these further strategies and action plans, but would not itself assign any activities or tasks.

A list was provided at the end of the NSBA of the range of possible applications for the spatial products that were developed. This list included policy applications (such as informing the listing of threatened ecosystems), reporting applications (such as the monitoring required under the Biodiversity Act) and prioritisation applications (such as highlighting areas where biodiversity and development activities could be better aligned.)

**Description of the project**

The NSBA was proof that a very useful product could be achieved even with limited data, capacity and resources. It was completed in under a year, with only a few part-time research staff and a small budget. The NSBA was led by SANBI, with input from partners in various fields of expertise.

The assessment was focussed at the ecosystem level, acknowledging that species data in such a biodiverse country was incomplete and unlikely to provide a comprehensive assessment. The foundation for the assessment were thus maps of ecosystem types for the terrestrial, freshwater and marine realms. For the terrestrial realm, underlying input data were already available in the form of the beta version of the National Vegetation Map. For the freshwater and marine realms, data had to be gathered or newly developed to create maps of ecosystem types. The freshwater assessment was limited to rivers, as it had become apparent that no reliable map of wetlands was available in the country. The rivers map was created for the NSBA from combined hydrology and geomorphology data.
The NSBA pioneered two main headline indicators: ecosystem threat status and ecosystem protection level. Ecosystem threat status was a measure of how much of an ecosystem type remained in good ecological condition. If a large proportion of an ecosystem’s original area had been lost due to other land-uses, it was highly threatened. Ecosystem protection level measured how much of an ecosystem type was included in the formal protected area network. In combination, these two indicators were able to draw attention towards ecosystem types that were under threat and those that were poorly protected. In addition, the NSBA made use of conservation planning software to identified priorities for conservation action.

Outcomes of the project

The findings of the NSBA with regard to river ecosystems were concerning. It showed that rivers were in a much poorer state than terrestrial ecosystems, with 44% of all river types considered Critically Endangered (Figure 11). Protection levels were not assessed for rivers because of the difficulties in determining their protected status (for example where a river forms a boundary of a protected area). The NSBA stated that the most urgent priority for river ecosystems was to improve land management practices within river catchments.

Figure 11: The conservation status of rivers from the NSBA.  

The NSBA proved to be a hugely successful product. It became a well-known and popular source of biodiversity information in the country, widely referenced by academic researchers, government departments, non-government organisations and more. The findings of the NSBA went on to inform numerous reporting processes, as well as being used as intended to bring geographical focus to national biodiversity strategies and action planning. As a result of its success, the NBSA was the beginning of regular biodiversity assessments in South Africa. The assessment was repeated and improved on in 2011 and again in 2018. These recurring national biodiversity assessments have been the impetus for ongoing improvements in biodiversity data for the freshwater realm (Figure 12).

![Figure 12: The most recent threat status of rivers and wetlands from the latest National Biodiversity Assessment 2018](image)

**Lessons learnt**

It was acknowledged that the findings of the NSBA for freshwater ecosystems were preliminary. The spatial data that were available were of a course resolution that needed to be improved upon. The methodology for river classification that was developed for the project was a first attempt that needed to be reviewed and refined. To be properly representative of freshwater ecosystems, the assessment needed to be expanded to include wetlands and groundwater. Additional data was required to improve mapping of ecosystem condition and the threats posed to freshwater ecosystems.

Within the marine space, a key lesson learnt from the NSBA was the value of the spatial approach. Dr Sink explained: “We learned about how to engage scientists and synthesise knowledge, that was really the first time that had been done, it was having a whole room full of scientists and now we wanted to systematically figure out how to represent biodiversity patterns in the sea. That was something people hadn’t done before. the Offshore Marine Protected Areas project was a direct result of the [National Biodiversity Assessment].”

It is clear that the first NSBA was a turning point in how SANBI related to water. It set the building blocks for a set of questions, areas of research, and articulation of priorities relating to water that has shaped the BIPA significantly, most notably in the form of the Ecological Infrastructure for Water Security Project that is currently in implementation.
Case study 2: National Freshwater Ecosystem Priority Areas project (2011)

Setting the scene

The NSBA and its successor the National Biodiversity Assessment 2011 highlighted the dire state of freshwater ecosystems in the country. The NBA 2011 had revealed that more than half the freshwater ecosystems in the country were considered threatened. It was clear that freshwater ecosystems deserved focussed attention to try to address this threat.

There was a wide range of freshwater ecology expertise in the country, spread among various research institutions, government departments and non-governmental organisations. However, this expertise had not yet been gathered into any focussed, national-level prioritisation of freshwater priorities, nor was there a recognised resource for spatial information on freshwater ecosystems. South Africa’s biodiversity planning community had by now been working with freshwater datasets and prioritisation methodology for a number of years. During this time, they were able to advance the practices required for mapping, classifying and prioritising freshwater ecosystems.

From a government perspective, there was an acknowledgement that South Africa was a water scarce country and that problems of water supply were escalating. There had recently been a number of national engagements aimed at strengthening co-operative governance around water. There was a drive to align mandates and find cross-sectoral ways of working that would have mutual benefits for water governance.

Objectives

The aims of the NFEPA project were twofold. Firstly, the project aimed to gather and develop spatial data on river and wetland ecosystems and use this to identify a national network of freshwater priority areas. It was anticipated that the resultant national map products would provide an authoritative source of spatial information on freshwater biodiversity patterns and priorities.

The second aim of NFEPA was to explore the institutional mechanisms for the implementation of freshwater priorities. This part of the project sought to understand the legal and policy mechanisms for managing freshwater resources in the country, and how these were divided between various government departments. The project would also produce an implementation manual that would provide guidance on how the maps should be used by water resources managers within national, provincial and municipal government.

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Description of the project
The NFEPA project was a multi-partner project between at least eight organisations. SANBI led the project with funding from the Water Research Commission, but was supported by key partners across national government departments, research institutions and non-governmental organisations. Ms Nancy Job, head of SANBI's Freshwater Biodiversity Unit, noted “So it was really multi-institutional and it had a good way of communicating. So, there were lots of big meetings where all stakeholders came and there were technical meetings. So, it really mobilised people working together across the country. There was a focus of taking that up into policy, taking it into catchment management agency planning. It infiltrated all sorts of different levels of how the country engages in freshwater”.

The project gathered a range of spatial input data from multiple sources, covering catchment boundaries, river ecosystems, river condition, wetland ecosystems, wetland condition, fish distributions, high water yield areas, groundwater recharge areas and estuaries. Many of these spatial datasets were significant advances in their own right and were respected products of the project. The spatial data was then subjected to a prioritisation process, using recognised systematic conservation planning methodology. The result was the identification of “FEPAs” or Freshwater Ecosystem Priority Areas.

The legal and policy assessment part of the project created a comprehensive list of laws and policy documents that may be relevant to the implementation of the FEPAs. It then identified a number of ways in which the uptake of science into policy could be strengthened.

Outcomes of the project
The findings of the NFEPA project reiterated that freshwater ecosystems were in poor condition. Only 35% of main rivers remained in good condition and as much as 65% of wetland ecosystems were threatened. The project highlighted the few remaining large free-flowing rivers, which had not been dammed. The project also identified important water supply areas, including high water yield areas and mountain catchment areas. It revealed that very few of these areas were under formal protection.

The NFEPA project extracted eight key messages

- Freshwater ecosystem priority areas are a valuable national asset.
- Freshwater inputs are critical to estuarine and marine environments.
- Free-flowing rivers should be regarded as part of our natural heritage.
- Healthy tributaries and wetlands support the sustainability of hard-working rivers.
- Healthy buffers of natural vegetation mitigate the impact of land-based activities.
- Groundwater sustains river flows particularly in dry seasons.
- Mountain catchment areas play a critical role in securing our water supplies.
- Healthy freshwater ecosystems support resilience and adaptation to climate change.
The spatial datasets developed by NFEPA were a significant achievement. The project created up-to-date, authoritative datasets on river and wetland ecosystems, FEPAs, fish sanctuaries and water yield areas (Figure 12). These datasets were served through SANBI’s BGIS website from which they were extensively accessed. Although there are recognised limitations to the data, they often still present the best that is available and have been used in countless other research projects and conservation initiatives.

Figure 13: An example of the detailed FEPA maps produced for each of the Water Management Areas.

The project produced an “atlas” for a more general public audience in addition to the technical report.

Lessons learnt

The NFEPA project made several important advances in terms of biodiversity mainstreaming. Firstly, it was a widely co-operative project. It involved numerous partners including the national government departments that are tasked with water resource and biodiversity management. It provided a working example of the value of knowledge co-production, meaning that many stakeholders came together with a combined vision and produced a knowledge resource that met the needs of more than one group simultaneously44. Dr Job highlighted: …”information doesn’t

get to action without mainstreaming and it doesn't get maximised without mainstreaming… if the system isn't functioning well, we will have water shortages, our environment won't be working so well, we will have all sorts of exacerbated constraints along with climate change”.

NFEPA also made a concerted effort to understand the implementation context. Its assessment of the legal and policy background for the water sector was comprehensive. It produced a standalone implementation manual intended to guide users on how the maps should be applied and how freshwater ecosystems should be taken into account during planning and decision-making.

The project also detailed the limitations of the data and made numerous recommendations for future research needs.

Case study 3: Strategic Water Source Areas project (2013)

Setting the scene

There had long been an understanding in South Africa that water supply was unevenly distributed across the country and that certain mountain catchment areas were important sources of water. Some of these mountain catchment areas had even been recognised under law. Internationally, such areas had been labelled as “water towers” or “water factories”.

With improved computing capabilities, there were ongoing improvements in the digital spatial data available on water runoff in the country. This created the opportunity to map the source areas of water more accurately. The NFEPA project in 2011 had developed a 1-minute resolution runoff dataset for the country that was then used to identify areas of disproportionately high runoff in each catchment that became known as the “high water yield areas”.

A follow-up assessment on the use of NFEPA products indicated that the “high water yield areas” map received a lot of attention from a variety of users, including scientists, government departments and non-governmental organisations. This was because water was understood as a scarce resource in the country and information regarding the supply of water was therefore highly relevant. The use of the “high water yield areas” map by these stakeholders revealed some concerns about its use and interpretation. Concerns were related to the methodological development of the map, confusion about the terminology used, and questions surrounding water sources in arid areas.

Objectives

The purpose of the Strategic Water Source Areas project was to refine the “high water yield areas” map from NFEPA and address the concerns that had been raised by users.
Description of the project

The SWSA project was conducted as a partnership between the World Wide Fund for Nature (WWF) and the Council for Scientific and Industrial Research (CSIR). The WWF funded the project and the CSIR, as a research institution, took on the scientific aspects of the work.

The project used updated hydrological modelling and methods drawn from an in-depth review of national and international approaches for identifying water source areas. Ultimately, it used updated, high resolution data on precipitation and converted this to runoff using modern hydrological modelling techniques. All of the concerns identified from the NFEPA dataset were addressed by using the new methodology. Once the SWSAs had been mapped, efforts were made to group these areas geographically and give them recognisable names to draw attention to the areas as individual entities (Figure 14).

Figure 14: Strategic Water Source Areas identified at a national scale in 2013.

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Outcomes of the project

The SWSA project summarised its findings into an impactful one sentence tagline: “Strategic Water Source Areas are the areas in South Africa, Lesotho and Swaziland that contribute 50% of the region’s water supply in less than 8% of the land surface area”. This statement is influential because it shows the importance of managing this small fraction of land that contributes so vitally to our water security should be acknowledged at the highest level across all sectors. The project revealed that although 63% of the SWSAs remained in natural condition, only 16% of the area had legal protection.

The idea of SWSAs was enthusiastically taken up by several non-governmental organisations, notably the WWF who were involved in the project. These organisations went on to develop information resources describing each of the SWSA individually for a general audience. The SWSAs were also used to direct the conservation work performed by these organisations.

SWSAs proved to be such a powerful biodiversity mainstreaming concept that they were again updated in 2018\textsuperscript{46}. The latest update identified 22 surface water and also added 37 groundwater source areas that are considered to be strategically important at the national level for water and economic security for South Africa (Figure 15). There are ongoing efforts to improve protection of SWSAs through a number of innovative avenues.

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Lessons learnt

The SWSA project was a confirmation of the making the case for biodiversity thinking. It showed that biodiversity priorities would be taken more seriously by other sectors if they were also aligned with national developmental imperatives, like water security. By combining the priorities for biodiversity and water into a focussed set of areas that would deliver returns for both sectors, more attention was gained and there was stronger motivation for actions to protect these areas.

PART 6: Recommendations for assessment

The purpose of this preliminary assessment is as a precursor to a more comprehensive assessment of SANBI’s biodiversity mainstreaming achievements, effectiveness and lessons learnt. Given the background information and insight gathered during this initial assessment, the following recommendations are made for the next step of the assessment:

Recommendation 1: Define the scope of the assessment

This assessment has shown that there are various related concepts to providing ‘policy advice’. At its broadest definition, almost any form of communication or awareness campaign could be seen as having a potential policy influence. However, intentional policy advice that aims to influence specific regulatory or planning processes within government consists of a much narrower set of activities than biodiversity mainstreaming in a more general sense. To help set the scope for future assessment, it will be helpful to decide on a defined set of inclusion criteria for what should be considered as ‘policy advice’ or biodiversity mainstreaming.

Recommendation 2: Record biodiversity mainstreaming interventions

Biodiversity mainstreaming can be a very diffuse activity, spread across institutions as a part of many different projects and programmes. One way to keep track of all the different interventions that have been conducted would be to create a comprehensive inventory of biodiversity mainstreaming activities or products. Each row in a spreadsheet could itemise a single product/intervention, with details captured such as the date, lead organisation, partners involved, stated aim, type of product, intended audience, data used, outputs developed etc. It may even be possible to use such a database to elicit some measure of impact for these interventions. This method of creating an inventory and analysing it was found to be a useful way of evaluating progress in biodiversity planning47 This could be paired with a comprehensive timeline that will plot key moments, projects, events and interventions that have shaped SANBI’s mainstreaming and policy advice practice.

Recommendation 3: Investigate roles and capacity for biodiversity mainstreaming

Another consequence of the fact that biodiversity mainstreaming is diffuse is that it is conducted by a large range of people. Within SANBI, there is only a small core team whose primary job description relates to providing policy advice. However, during this assessment it became clear that many staff members throughout the organisation played some form of policy advisory role as part of their day-to-day work. It would be useful in an assessment to understand the division of labour and assignment of responsibility between these different types of policy advice practitioners. This could then be used to recognise and address capacity constraints and skills gaps.

Recommendation 4: Understand existing resources

There already exists a body of literature that captures the lessons of biodiversity mainstreaming, both from within South Africa and internationally. This represents a huge wealth of experience from those who have been actively involved. Prior to developing additional resources or best-practice guidelines, it would be useful to understand the depth and content of the existing information. In addition, it may be useful to understand whether those who are currently involved in biodiversity mainstreaming in SANBI are aware of existing resources, and what type of additional guidance they may require that complements that which is already available. Thought needs to be given to presenting new guidance in a way that will encourage wide consultation by those who wish to improve their biodiversity mainstreaming skills.

Recommendation 5: Investigate ways to measure biodiversity mainstreaming success

It can be difficult to directly measure the impact of biodiversity mainstreaming interventions for a number of reasons. They are inherently social interactions that often count among their successes a change in perspective by a target audience, which is difficult to quantify. Biodiversity mainstreaming is often also a stepwise process, where success is built through successive small changes rather than a direct single outcome (as is shown through the set of case studies used in this assessment). There are often delays between a mainstreaming intervention and its eventual effect. If the purpose of an assessment is to evaluate the impact and effectiveness of biodiversity mainstreaming, additional exploration of feasible evaluation measures will be needed.
Annexure 1: Interviewees, round 1

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<thead>
<tr>
<th>No.</th>
<th>Interviewee</th>
<th>Position at SANBI</th>
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<tbody>
<tr>
<td>1.</td>
<td>Alex Marsh</td>
<td>Policy Advisor: Biodiversity Finance and Ecological Infrastructure</td>
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<tr>
<td>2.</td>
<td>Matthew Child</td>
<td>Project Coordinator: Biodiversity Informatics</td>
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<td>3.</td>
<td>Marthán Theart</td>
<td>Legal Specialist</td>
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<td>4.</td>
<td>Azisa Parker</td>
<td>Project Leader: Biodiversity and Land use Project</td>
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<td>5.</td>
<td>Deshni Pillay</td>
<td>Chief Director: BIPA</td>
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<td>7.</td>
<td>Tsamaelo Malebu</td>
<td>GIS Specialist</td>
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<td>8.</td>
<td>Aimee Ginsberg</td>
<td>Project Manager: Natural Capital Accounting and Evaluation of Ecosystems Project</td>
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<tr>
<td>9.</td>
<td>Nancy Job</td>
<td>Lead: Freshwater Biodiversity Unit</td>
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<td>11.</td>
<td>Andrew Skowno</td>
<td>Lead: National Biodiversity Assessment Unit</td>
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<td>12.</td>
<td>Mahlodi Tau</td>
<td>Director: Biodiversity Mainstreaming</td>
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<tr>
<td>13.</td>
<td>Kerry Sink</td>
<td>Lead: Marine Unit</td>
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<tr>
<td>14.</td>
<td>Domitilla Raimondo</td>
<td>Lead: Threatened Species Unit</td>
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<td>15.</td>
<td>Mandy Barnett</td>
<td>Chief Director: Adaptation, Policy and Resourcing Division</td>
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Annexure 2: Report from the Making the Case for Biodiversity project

(see next page)
MAKING THE CASE FOR BIODIVERSITY

PHASE 1

FINAL DRAFT PROJECT SUMMARY REPORT

September 2011

A DEA and SANBI collaboration
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EXECUTIVE SUMMARY

Background

The biodiversity and natural resource management sector of South Africa is underfunded, and its messages, which are not framed in ways that resonate with government priorities, are often not heard. Further, a widely held perception is that biodiversity conservation is an elite pursuit which is not consistent with the development objectives of the country, and often conflicts with these.

In response to the need to shift these perceptions to reflect the very different reality of biodiversity conservation in South Africa today, SANBI and DEA initiated the ‘Making the Case for Biodiversity’ process. This process was endorsed by the Protected Areas CEOs Forum, the SANBI Board and the signatories of the CAPE and Grasslands Bioregional Programmes.

The process combined the skills of two service providers, one with strong marketing and branding expertise (Freedthinkers), and the other with a good understanding of the processes and policy environment of government (LinkD). The interactive methodology involved desk top research, interviews with stakeholders in targeted sub-sectors, facilitated group discussions and a communication indaba where participants reached broad agreement on the central message and implementation strategy.

The process produced a rationale and set of messages that reposition biodiversity and ecosystem services as drivers of the green economy, and a platform on which solutions to service delivery and job creation can be built. This process aims to infuse a new language for use by the biodiversity sector and in so doing, to lay a foundation for the achievement of the sustainable use, restoration and conservation of biodiversity and ecosystem services for years to come.

Objectives

By using this new positioning, DEA and SANBI aim to:

- Increase the proportion of national Governments funding allocations and priorities dedicated to the biodiversity sector, with a target of a 30% increase in financial allocations to the sector at the next MTEF;
- Support the biodiversity sector to access R1 billion from the National Jobs Fund to address capacity constraints and stimulate economic activity in the sector;
- Make biodiversity a key consideration in all development related decisions, including at the municipal level; and,
- Infuse a new language for use by the biodiversity sector. Although this is a key means to achieving the objectives of the strategy, this is also an end in itself that will lay the foundation for years to come.
Findings

What is the problem?

- The term biodiversity is not understood;
- The link between economic development and biodiversity is not well understood, and biodiversity is commonly seen as being in competition with socioeconomic imperatives; and,
- Communication from the biodiversity sector is sometimes contradictory and often confusing.

What can the sector do about it?

- Align biodiversity messaging inextricably – and simply – with the needs of a developmental society, and align with government priorities of job creation, rural development and growth and equity;
- Demystify the term biodiversity;
- Adopt a streamlined, unified position and common attitude, narrative and message to run through communications from across the sector. This internal realignment is pivotal to the success of an inter-governmental communication strategy and will require strong scientific and political leadership;
- Shift communication from a focus on the value species, to the value of and connectivity of ecosystem services, and the value for people;
- and,
- Centre messaging around a narrative that reflects the Value of Biodiversity, made up of its Economic Value, Practical Value and Emotional Value.

The Strategy

The messaging strategy is built around a narrative that describes the importance and value of biodiversity to society and a core message that aims to capture tangible benefits in a strong, single-minded way. It needs to take the high ground, rationally and emotionally, without being arrogant or elitist. It also needs to be backed by facts and ambitious, yet realistic, projections. The narrative and core message are the golden threads that runs through the tapestry of communications for ‘making the case’.
Making the Case for Biodiversity

Narrative

Biodiversity is everything we have; it is the variety of life.
Interconnected living things and natural systems provide a foundation for:

- Economic growth (jobs)
- Social development (service delivery)
- Human well being (a better life)

Biodiversity provides clean water, food, medicine and fibre.
Biodiversity regulates & mitigates our climate; it protects us from natural disasters like floods, fires and coastal erosion.
Biodiversity gives us places to play. Biodiversity empowers us to cope with change.

The wealth of South Africans is built upon biodiversity.

This narrative was expanded further in the following rough infographic:

Biodiversity…

<table>
<thead>
<tr>
<th>SUSTAINS</th>
<th>Water, Craft, Energy</th>
<th>JOBS!</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOURISHES</td>
<td>Agriculture, Agribusiness, Fisheries, Food industry, Hospitality</td>
<td>JOBS!</td>
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… gives us freedom of choice. Biodiversity is everything we have!
The Core Message

Biodiversity

Powering the Green Economy

The core message is able to resonate with Government’s current priorities of job creation, rural development, growth and equity. This message outlines the importance of the Green Economy while simultaneously reminding readers that biodiversity and healthy ecosystems are the true fuel of the Green Economy.

Next Steps and Early Victories

The making the case for biodiversity process has generated a wealth of ideas and knowledge that will need a detailed action framework to be put into effect. Main elements of the framework are set out below.

Develop a unified set of responses to debates about biodiversity. The contradictions and debates within the biodiversity sector need to be streamlined to be presented as debates that inspire confidence in the sector and are able to inform nuanced policy and programme developments. This internal realignment is pivotal to the success of an inter-governmental communication strategy and will require strong scientific and political leadership;

Develop messaging that reinforces the strategy: Develop a simple messages document that can be used in communications about biodiversity. In this document, the rationale for the messaging strategy, narrative and core messaging should be explained, and a series of examples that advocate biodiversity using the new messaging should be provided;

Build more detailed specific lobby strategies. In addition to finding synergies between the needs of the biodiversity sector and needs of other sectors, sector specific strategies should include an analysis of which biodiversity related knowledge bases and decision support tools would be useful for that sector, and then streamlining access to this information and tools into those sectors. This kind of work is already underway, but additional work needs to be done to facilitate partnerships with Departments not traditionally associated with biodiversity concerns;

Get the sector on message The Making the Case strategy should target biodiversity supporters, waverers and opposers in all three tiers of Government. If the biodiversity sector is to influence Government, it also needs to reach a wider audience that extends to the Media, Eco-Family, Economists and General Public. The alignment must first happen across the whole of DEA and SANBI, and across the biodiversity sector;
Agree on a detailed implementation plan: A detailed resourcing and implementation plan for implementing the strategy needs to be developed. Importantly, this should include allocating the necessary human and financial resources to support this;

Clarify coordination arrangements for implementation of the strategy: It has emerged that it would be important for messaging to be coordinated from a centralized messaging hub in DEA or ion SANBI, and supported by an independent network of biodiversity partners. These options should be explored and a coordination mechanism should be agreed upon and institutionalized;

Launch a few key interventions to keep momentum going: Several interventions were identified as options in the implementation strategy and some of these should be launched immediately. These could include infographics; specific valuation exercises that provide specific answers in support of the messaging strategy; fundraising proposals that embody the proposed messaging and profiling at the UNFCCC COP in Durban in late 2011; and,

Commission further phases of work: Initiate further phases of 'Making the Case'. Further phases could include examining messaging strategies for local and provincial government, and for the private sector.
1. BACKGROUND

The biodiversity and natural resource management sector of South Africa is underfunded, and its messages, which are not framed in ways that resonate with government priorities, are often not heard. Further, a widely held perception is that biodiversity conservation is an elite pursuit which is not consistent with the development objectives of the country, and often conflicts with these.

In response to the need to shift these perceptions to reflect the very different reality of biodiversity conservation in South Africa today, SANBI and DEA initiated the ‘Making the Case for Biodiversity’ process. This process was endorsed by the Protected Areas CEOs Forum, the SANBI board and the signatories of the CAPE and Grasslands Bioregional Programmes.

The process combined the skills of two service providers, one with strong marketing and branding expertise (Freedthinkers), and the other with a good understanding of the processes and policy environment of government (LinkD). The interactive methodology involved desk top research, interviews with stakeholders in targeted sub-sectors, facilitated group discussions and a communication indaba where participants reached broad agreement on the central message and implementation strategy.

By using this new positioning, DEA and SANBI aim to:

- Increase the proportion of national Governments funding allocations and priorities dedicated to the biodiversity sector, with a target of a 30% increase in financial allocations to the sector at the next MTEF;
- Support the biodiversity sector to access R1 billion from the National Jobs Fund to address capacity constraints and stimulate economic activity in the sector;
- Make biodiversity a key consideration in all development related decisions, including at the municipal level; and,
- Infuse a new language for use by the biodiversity sector. Although this is a key means to achieving the objectives of the strategy, this is also an end in itself that will lay the foundation for years to come.

This document describes the approach and methodology that was followed, and presents the findings and recommendations of the process. Most of the findings are captured in detail in two PowerPoint presentations that were prepared as part of the process. Referred to as the ‘Research PowerPoint’, and the ‘Who How What Wow PowerPoint’, these are referenced throughout.
2. APPROACH

The ‘Making the case for biodiversity’ process combined market research, stakeholder analysis and engagement, and facilitated dialogue within SANBI, DEA and key stakeholder partners such as Indalo-Yethu and WWF-SA. The seven steps that were followed are described below and illustrated in the figure below.

![Diagram of the ‘Making the Case’ process](image)

**Figure 2.1: Diagram of the ‘Making the Case’ process**

### 2.1. Planning and Stakeholder Mapping

The project commenced with planning workshops between the Reference Group, which comprised SANBI, DEA, WWF-SA, Freedthinkers and LinkD. This included a workshop that was facilitated by LinkD in which the biodiversity stakeholder landscape was mapped. In this exercise, potential stakeholders inside and outside government were plotted on the basis of their levels of influence, interest and association directly and indirectly with biodiversity in the South African context. This analysis informed the selection of the individuals who would contribute towards and participate in the development and testing of biodiversity messaging, and was also used to determine whether or not it would be desirable to develop differentiated messages for the different stakeholder groups.

The stakeholder analysis is attached in Annexure A.
2.2. Consultation and Desk Research

The consultation and desk research phase comprised two facilitated dinner discussions, six in-depth interviews, and desk research on biodiversity and how it has been communicated in South Africa and internationally. The desk research revealed eight biodiversity ‘debates’, and these informed the draft message generation. The ‘debates’ are listed in Section 3.

The reference materials that formed the core of the desk research are provided in Annexure B. A description of the ‘Biodiversity Debates’ is provided in Annexure C.

2.3. Draft Messages Generation

The learnings of the consultation and desk research phase enabled Freedthinkers to develop a battery of eight concept messages that were refined with inputs from the reference group.

Each message was a concept, simply expressed for immediate understanding, that was designed to spur dialogue and a deeper understanding of what motivates the target market.

The eight messages that were tested are presented in Section 3.3.

2.4. Stakeholder Engagements

Freedthinkers moderators then conducted 18 in-depth interviews with the target audience sample. The sample selection was informed by the stakeholder analysis, allowing interviewees to be grouped as ‘allies’, ‘potential allies’, ‘leaders’, ‘competitors’, provincial representatives’, and ‘non-governmental representatives’. These interviews followed a discussion guide that was pre-agreed with the Reference Group, and tested the eight messages.

All interviews were recorded and transcribed, then analysed and synthesized. These results informed the first part of the Research PowerPoint presentation.

The discussion guide can be found in Annexure D. The Research PowerPoint presentation is provided in Annexure E.

2.5. Draft Outcomes

Based on the results of the process, Freethinkers prepared a draft interim strategy that:

- Proposed core messages and an associated rationale;
- Proposed communication vehicles;
- Suggested how the communications strategy would roll out; and,
- Provided examples of communications.
This interim strategy became the first part of the “Who, What, How, Wow” part of the PowerPoint presentation that was presented at the Communication Indaba (see below).

The slides of the Who, What, How, Wow presentation are set out in Annexure F.

2.6. Biodiversity Communication Indaba

The Biodiversity Communication Indaba was held over two days at Freedthinkers collaborative space in Turbine Hall, Newtown, Johannesburg. The purpose of the indaba was to check the relevance of the messages and try to improve them, to populate the strategy with ideas that emerge and build on eachother and to suggest a set of products that would be needed to advance the strategy.

Participants included representatives of DEA, SANBI and Freedthinkers. The Indaba began with the PowerPoint presentation of the stakeholder engagements, followed by the proposed communication concepts and draft communication strategy.

The participants interrogated and built on the draft interim strategy, and reached broad agreement on the central message and the strategy.

2.7. Final Communication Strategy, Message Set and Briefs

Following the Indaba, Freedthinkers finalized the ‘Who, What, How, Wow’ PowerPoint presentation, and LinkD completed a document on Sector-Specific Lobby Strategies. A detailed communication strategy was also developed.

The final slides of the Who How What Wow PowerPoint are provided in Annexure F. The Sector Specific Lobby Strategy document is attached in Annexure H, and the communication strategy is attached in Annexure G.
3. FINDINGS

The research process into the dynamics of stakeholder attitudes and opinions towards biodiversity led to three result areas: (1) Key questions that the biodiversity sector needs to address (the ‘biodiversity debates’); (2) General results from the stakeholder engagement process; and, (3) Responses to key messages about biodiversity.

These are summarized in the sections that follow. More detailed information on all of them is contained in supporting documentation, notably the PowerPoint presentations that are attached to this document in Annexures E and F.

3.1. The Biodiversity Debates

The desk top research process revealed that eight debates/questions dominate the discourse about biodiversity. The development of a bold and meaningful message about biodiversity will require the biodiversity sector to engage with these debates, and to develop a streamlined response to them.

The debates are listed below and described in Annexure C.

**Debate 1: Do the Champions of Biodiversity Appreciate Developmental Priorities?**

The links between biodiversity and social and economic development are not always expressed clearly and the biodiversity sector is often seen as having a competing rather than complementary and supporting objectives.

The biodiversity sector needs to drive the process of developing an understanding of the complementary relationships between economic development and biodiversity conservation through proactive engagements with other sectors.

**Debate 2: Have We Undervalued South Africa’s Biodiversity?**

Variation in valuation methodologies produces confusing messages about the value of biodiversity. These valuation methodologies have produced a range of values for biodiversity that vary widely. It is asserted that many (although not all) of these techniques undervalue biodiversity, and that agreement needs to be reached on an approach that communicates the full value of biodiversity and ecosystem services to society. There is also a need for more specific and in-depth valuation exercises that are targeted at specific audiences. These need to illustrate the value and benefits of biodiversity and ecosystem services to the economy and the social objectives of the country.
Debate 3: How can our Constitution Balance Economic Development and Biodiversity?

The Constitution states that the rights of South Africans include: “An environment that is not harmful to their health and well-being and have the environment protected for the benefit of present and future generations”. This, along with other constitutional rights to clean water, food security and education make balancing economic development and biodiversity concerns a constitutional issue.

Biodiversity messaging could explore how trading environmental rights for immediate social and economic rights can be reframed in relation to the impacts of these actions on the sustainability of broader constitutional rights.

Debate 4: Do We Demonstrate Case Histories or Projections?

There is an urgent need for demonstrable evidence to support the case for biodiversity. This evidence can be presented as case histories, or future projections, and decisions need to be made within the biodiversity sector regarding where to focus research in developing this evidence.

In addition to work done within the sector, mainstreaming the importance of monitoring and evaluating the value of biodiversity to the economy will ensure that the biodiversity begins to be valued outside of the sector. The true value of biodiversity will only emerge if there is sufficient buy-in from economic and financial institutions able to produce ongoing economic valuations.

Debate 5: Are there Compelling Business Cases for the Green Economy?

The principles behind a Green Economy are widely accepted and significant support has been provided to realise the potential of the green economy for sustainable economic development in South Africa.

Within the sphere of green economic activities, there is an opportunity to broaden the understanding of the opportunities that biodiversity conservation offers beyond those associated with conservation and eco-tourism related activities to, for example, biodiversity-based job creation initiatives and in-depth business support programs for communities or entrepreneurs.

Debate 6: What Large-Scale Projects are Being Initiated?

South Africa’s “Working For” programmes have provided thousands of jobs for the unemployed and have been lauded internationally for their successes in simultaneously addressing poverty alleviation and the restoration of ecosystems services.

Additional initiatives need to be conceptualised that can drive long term economic contributions from the biodiversity sector to job creation and other government priorities. Biodiversity related economic opportunities need to be considered and understood in relation to all sectors, not just the conservation sector.
Debate 7: Can Agriculture and Biodiversity Become Allies?

An ecosystems-based approach to agriculture is demonstrating the intrinsic relationship between biodiversity and agriculture and this relationship needs to be further understood and widely publicised. An alliance can be built between biodiversity and agriculture, particularly in relation to ecosystem-based adaptation strategies to combat the negative effects of climate change as well as improved agricultural practices for better biodiversity gains.

Debate 8: Can Mining and Biodiversity Become Allies?

As with agriculture, the need to exploit South Africa’s mineral resources and the need to protect its biodiversity are seen by many as opposing forces. The long-term sustainability of South Africa, and of communities living in mining areas in particular, needs to be carefully considered when trying to find synergies between the two sectors.

3.2. Stakeholder engagements

A series of stakeholder engagements, including in-depth interviews, were conducted with senior officials from a range of national and provincial government departments, including the Presidency. Responses from the participants were wide ranging, but a few themes emerged across all stakeholders, as follows:

- The term biodiversity is not understood;
- The link between economic development and biodiversity is not well understood, and biodiversity is commonly seen as being in competition with socioeconomic imperatives; and
- Communication from the biodiversity sector is sometimes contradictory and often confusing.

The results of the research raised first and foremost the importance of demystifying biodiversity and linking it inextricably – and simply – with the needs of a developmental society. In order to shift attitudes and increase understanding of biodiversity and its importance to society, the biodiversity sector also needs to adopt a common attitude, narrative and message to run through communications from across the sector. The importance of streamlining the sector’s communication ‘position’ is as important as streamlining the sector’s responses to the biodiversity debates outlined in the previous section. A streamlined, unified position underpins any communication strategy and is essential to its success.
3.3. Message evaluation

Eight messages emerged from the desk top analysis and were tested and ranked in the stakeholder engagement process.

The messages are presented in Table 3.1 in the order in which they were eventually ranked by stakeholders. The ranking and detailed responses from interviewees to the cases are shown in the Research PowerPoint (Annexure E).

Of the eight messages tested, one was a clear winner, with two others sharing second place.

- The clear winner was National Asset.
- The first runner-up was Children’s Legacy.
- The second runner-up was Practical Solutions.

The combination of these three messages provides a departure point for future biodiversity messaging that combines a rational need, with an emotional component and a component that supports practical action warranting the allocation of scarce government resources.

Slides that present the detailed responses to the messages that were presented are attached in the Research PowerPoint in Annexure E.

<table>
<thead>
<tr>
<th>Table 3.1: The Eight Messages</th>
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</thead>
<tbody>
<tr>
<td><strong>Message 1: National Asset</strong></td>
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<tr>
<td><strong>Message 2: Children’s Legacy</strong></td>
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</table>
## Message 3: Practical Solutions

Here are three things that Government can do to protect and enhance our natural infrastructure:

- Ensure biodiversity maps inform decisions about where development is located.
- Expand and manage our network of national parks and nature reserves.
- Seriously consider the ROI, employment and climate change adaptation benefits of naturally restoring degraded ecosystems.

## Message 4: Wealth of the Rural Economy

Biodiversity is the natural capital of the rural poor. Without financial capital, the natural world still provides food and water, shelter, medicine and cultural bonding.

Trading biodiversity for short-term gains steals from the most marginalised in our society, their heritage and their future. Instead, we need to unleash the potential of biodiversity to develop rural economies.

## Message 5: Climate Change

Climate change will have negative effects for our food and water supplies, our traditional medicines and eco-tourism.

But good biodiversity management can slow down climate change and its impacts. Grasslands and forests store carbon for us, keeping it out of the atmosphere. Healthy rivers and wetlands reduce the repercussions of floods and droughts.

Our natural wealth can help to save us from natural disasters.

## Message 6: Global Leadership

South Africa is a world leader in biodiversity. We are the third most biodiverse country in the world, with many global best practices that include:

- Working for Water and other EPWP Programs
- Maps of Critical Biodiversity Areas with Linking Corridors that guide spatial planning
- Biodiversity and Wine Initiative that has seen wine-farmers of South Africa with a total of 100 000 hectares under vines, conserving an additional 120 000 hectares.

As the world faces a global biodiversity crisis, South Africa can spearhead innovative solutions.

## Message 7: Health

Healthy, thriving biodiversity is vital for a healthy population. For example, healthy rivers and wetlands will prevent the spread of water-borne diseases such as bilharzia, cholera and malaria. Our rich variety of flora and fauna provides natural medicines used by over 80% of our population.

Biodiversity is the fabric of life and it is the duty of Government to ensure this natural infrastructure continues to deliver, for the benefit of all.

## Message 8: Humanity

As humans, we are part of the web of life. We need the sense of wonder and spiritual fulfillment that the natural world gives us.

Our cultural diversity together with the diversity of Nature makes us unique and resilient. As a society, we must value and reclaim our heritage and what the Earth has to offer us. Nature’s ubuntu is all around us - and is part of us.
4. THE MESSAGING STRATEGY

4.1. The Journey

A challenge of the biodiversity sector’s messaging strategy will be to move from a focus on the value of species, a long held departure point for the biodiversity sector, to the value of an ecosystem and the value for people. Government’s journey is the opposite way – starting from value for people, to recognising the value of ecosystems and through this the value of an individual species.

Building on this, and the outcomes of the message ranking exercise, several additional frames were proposed:

The messaging should:

- Have economic, emotional and practical components;
- Reflect financial value, express future worth and indicate practical solutions;
- Align with government priorities of job creation, rural development and growth and equity; and,
- Embrace the connectivity of ecosystem services.

The messaging should position biodiversity as responding to things that society:

- Has to do, because they are national priorities,
- Wants to do, because they draw on an emotional component; and,
- Can do, because the way forward is practical and implementable.

A streamlined, unified position underpins any communication strategy and is essential to its success. If the ’Making the Case for Biodiversity’ messaging strategy is to be successful, the biodiversity sector must adopt a central attitude, narrative and message. These elements are elaborated below.

4.2. Biodiversity SCAN

SCAN, which stands for Strength, Context, Attitude, Narrative, is a strategy tool used to define what needs to be communicated, as well as acting as the core of all communication briefs. Building on insights of the process, including feedback from stakeholders, the following was determined:

**Strength**

The core strength of ’Biodiversity’ is its value in terms of worth to the South African economy, the jobs it can create directly and indirectly, improved physical and spiritual health. It follows that at the centre of the messaging strategy should be the Value of Biodiversity, made up of its Economic Value, Practical Value and Emotional Value.
Making the Case for Biodiversity

Context

Globally, we are in a time of reassessment. Whilst climate change skepticism has lessened, what to do about it is still a debate. And whilst the balance of global trade is shifting from North to South, from West to East, the inequalities of the current Capitalist model are causing unrest. Unemployment grows, with youth especially affected. More environmentally-friendly practices are being legislated by governments, practised by organisations and individuals. New models of sustainable growth are being tried, and the green economy is being advanced as a development model.

Locally, in South Africa unemployment is severe; poverty, inequality and service delivery are core issues. There continues to be rapid urbanisation. At the same time, the unique environment of this country provides significant and tangible benefits, evident in different ways, to all South Africans.

An immediate opportunity is the upcoming UNFCCC COP 17, which provides a unique global stage on which to make the case for Biodiversity. Post COP17 public, corporate and Government will have a window of heightened environmental awareness.

Attitude

The national and international context within which the ‘making the case’ process is located suggests that the champions of biodiversity need to adopt an attitude to communication which combines:

- the strengths of knowing, bold activists able to put their knowledge to good effect and able to prove words with actions; with
- the role of caring pragmatists, able to blend care for the planet and it’s people and find practical solutions that can work for both.

Narrative

The messaging strategy is built around a narrative that describes the importance and value of biodiversity to society, and a core message. The central narrative to emerge from the process is as follows:

Biodiversity is everything we have; it is the variety of life.

Interconnected living things and natural systems provide a foundation for:

- Economic growth (jobs)
- Social development (service delivery)
- Human well being (a better life)

Biodiversity provides clean water, food, medicine and fibre.

Biodiversity regulates & mitigates our climate; it protects us from natural disasters like floods, fires and coastal erosion.

Biodiversity gives us places to play. Biodiversity empowers us to cope with change.

The wealth of South Africans is built upon biodiversity.

Phase 1: Project Summary Report
This narrative was expanded further in the following rough infographic:

**Biodiversity...**

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... gives us freedom of choice. Biodiversity is everything we have!

### 4.3. The Core Message

The narrative surrounding the importance of biodiversity to society has been summarized in a core message that is able to resonate with Government’s current priorities of job creation, rural development, growth and equity. The core message aims to embrace tangible benefits in a strong, single-minded way. It needs to take the high ground, rationally and emotionally, without being arrogant or elitist. It also needs to be backed by facts and ambitious, yet realistic, projections. The core message is the golden thread that runs through the tapestry of communications for ‘making the case’.

The essence of the core message is:

The rationale supporting the core message is based on the UNEP definition of the Green Economy: “Improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.”
Using this definition, the core message claims the space made by existing Green Economy initiatives by reminding government what the essence of the Green Economy is and thus linking it directly to biodiversity. Currently the notion of the Green Economy is focused on the tools of such an economy (green fuels, green technologies, green industries, etc), rather than on the purpose of those tools – healthy ecosystems and a wealth of biodiversity able to support life for all. This message outlines the importance of the Green Economy while simultaneously reminding readers that biodiversity and healthy ecosystems are the true fuel of the Green Economy.

4.4. Senders and Receivers

4.4.1 Who From?

The programme of work to make the case for biodiversity in a sustained and meaningful way must begin within the biodiversity sector. The contradictions and debates within the biodiversity sector about what biodiversity means need to be aligned and presented as perspectives that are able to inform nuanced policy and programme developments. This internal realignment is pivotal to the success of an inter-governmental communication strategy and will require strong scientific and political leadership.

Who gives the message influences how it is received and engagement around the message will enrich and publicise the case for biodiversity. It is important that the messages are given in a coordinated way, by institutions that have power, influence and credibility to impact on the target audience.

This strategy provides an opportunity for DEA and SANBI to take the initiative and allocate the necessary human and financial resources to support mainstreaming a common message and preferred future for biodiversity within the broader environmental sector as a starting point, and then across government. Formalisation of this arrangement by way of a dedicated messaging unit, or ‘Making the Case Coordination Hub’ as it is referred to in Annexure I, should be explored.

4.4.2 Who To?

Target audiences and desired outcomes for “Making the Case” include:

- Supporters, waverers and opposers in Government;
- The Media, Eco-Family, Economists and General Public; and,
- COP 17 Delegates.

The Making the Case alignment must first happen across the whole of DEA and SANBI, and across the biodiversity sector. Following this, the key messages can be convincingly made to all three tiers of Government, with the emphasis on National. It is noted that, if the biodiversity sector is to influence Government, it also needs to reach a wider audience that extends to the general public.

The Media is needed to amplify the case; scientists, academia and NGOs are needed to support it, ambassadors to champion it, business to see new opportunities arising from it.
4.5. **Sector Specific Lobby Strategies**

The general narrative and core message of the ‘Making the Case’ process are the foundation on which more detailed, sector specific lobby strategies can be built. Critical to the success of a communication strategy is a combination of generic messaging and sector specific messaging able to capture broad based attention and interest while motivating sector specific actions.

Motivating sector specific actions involves gaining an understanding of the degree to which biodiversity concerns intersect with the concerns of other sectors and mainstreaming biodiversity related actions into existing action plans. The introduction of the National Outcomes by the Presidency has streamlined sectoral concerns into societal concerns on which departmental performance will be measured. These outcomes are a good starting point when looking for areas in which biodiversity may have overlapping concerns with other sectors, but detailed stakeholder analysis, including looking at departmental visions, mission and values statements and strategic plans is also necessary.

In addition to finding synergies between the needs of the biodiversity sector and needs of other sectors, sector specific strategies should include an analysis of which biodiversity related knowledge bases and decision support tools would be useful for that sector, and then streamlining access to this information and tools into those sectors. This kind of work is already underway through programmes like the Grasslands Programme, but additional work needs to be done to facilitate partnerships with Departments not traditionally associated with biodiversity concerns.

In-depth interviews conducted for the ‘Making the Case’ process provide a starting point for the development of sector-specific lobby strategies for the Finance; Governance; Rural Development / Land Affairs; Water and Research sectors.

A detailed sector specific analysis that is based on transcripts from the stakeholder interviews is attached in Annexure G.
5. STRATEGY AND COMMUNICATION CHANNELS

The toolbox for a communication strategy that effectively makes the case for biodiversity across all government sectors must address the four basic principles of a good marketing strategy – gain Attention; spark Interest; turn interest into Desire and then mobilise Action.

AIDA is a marketing and communication discipline that has been used for over 100 years. It recognises the way we react to messaging. First the communication must capture our attention – not just for a moment, to be immediately forgotten – something must stick.

Once attention has been gained, we need to spark interest, turn that interest into desire, and then make action as frictionless as possible.

The AIDA strategy that was developed is summarized below.

A more comprehensive strategy with costings is attached in Annexure H.

5.1. Gaining Attention

Because there is so much competing for our attention, we cannot stop at the first stage, nor can we skip it. Attention is low for biodiversity amongst Government and understanding of the benefits of biodiversity is even lower. It is thought of, if at all, as a side issue, competing with more pressing human needs and overshadowed in environmental terms by climate change. The danger we need to avoid is that biodiversity is regarded as more of a problem than a solution.

Suggestions for gaining attention include:

- **DEA/ SANBI Biodiversity relevance launch**: Officially launch the messaging campaign with an event that marks this occasion.
- **Infographic Posters**: Develop a series of infographics and supporting materials that can be placed in all government departments and associated publicity. The strapline: Biodiversity - Powering the Green Economy – should feature on all Infographics.
- **Sponsored TV Advertisement**: SANBI/ DEA could approach MasterCard with a proposal to adapt their “Priceless” series of TV commercials.
- **Cop 17 Activations**: A unique opportunity to present biodiversity as a natural source of mitigation and adaptation processes to support South Africa’s climate change responses and an opportunity to develop the Green Economy. An adaptation of the vertical garden concept, that would see the construction of a large zulu bee-hive has been proposed.

5.2. Sparking Interest

Once attention has been captured, it is crucial to be able to inspire real interest in the subject through providing easily accessible information. Currently, biodiversity related information is sector specific.
Making the Case for Biodiversity

and jargon filled. Information that captures the interest of other government sectors must appeal to people with no existing interest or knowledge of the subject. Seven interest generating information sources have been suggested.

- **Dedicated Website and Social Media:** As attention is aroused, many will want to know more— including media, academia, NGOs and Government representatives. The natural place for them to go will be a website that is dedicated to demonstrating and promoting the value of Biodiversity Services.
- **Pictorial Map and Barometer:** A biodiversity map of South Africa that shows the many and varied economic activities provide by biodiversity services.
- **Specific Lobbying:** Develop sector specific messaging that is able to capture broad based attention and interest while motivating sector specific actions.
- **Big Name PowerPoint Show:** This would be the Biodiversity equivalent of “An Inconvenient Truth” and would need to be presented by a South African who has status and commitment. The mining community, in Government and business, would be the ideal prospects for such a roadshow and so it is vital, if this initiative is to succeed, to engage with someone who speaks their language, knows their issues and whom they would respect.
- **Parliament Science Lectures:** Offer biodiversity-related talks as part of planned monthly science lectures/talks for members of parliament.
- **Vertical Gardens:** Show Biodiversity in Action with Vertical Gardens, as a follow-up to COP17.
- **Feeding the Eco-Family:** Schedule workshops with the civil society part of the biodiversity sector (NGOs, community-based organisations, private sector, tertiary and research institutes etc.) that focus on alignment with Government Priorities. Become the purposeful, pragmatic voice of the sector.

5.3. Desire to Action

The purpose of capturing attention and generating interest is ultimately to motivate action. Sector specific strategies should incorporate targets for specific actions for each department. Activities that support creating a ‘desire to action’ include:

- **Creation of jobs through Presidential Jobs Fund:** Submit an application to the presidential jobs fund that centres on cost-effective job creation, upstream/downstream economic benefits and specific projects that can be speedily implemented.
- **Testimonials from Doubters:** Skeptics are unlikely to change unless another former skeptic convinces them. These testimonials (two to three would be sufficient) come from significant doubters who have been convinced, and are targeted at doubters who remain to be. Ideally, they would be on video at the website and as part of the PowerPoint roadshow.
- **Field Trips:** Take Government officials with their children on an overnight field trip as part of a lobbying strategy.
- **Biodiversity Maps and Corridors:** Show practicality and value at a municipal level; this may need regional workshops and a map expert available to help with ongoing queries. **Biodiversity and Eco-Tourism:** Develop tourist friendly maps showing Biodiversity routes and nodes in association with SA Tourism. This could include a road atlas with biodiversity and natural features that could be sold commercially. This could also attract a commercial sponsor—
such as Avis, the AA, the Map Studio. A link with the department of Tourism could also be explored.

- **Sectoral Workshops**: Convene sectoral workshops that entrench “Powering the Green Economy” by a series of practical applications. This programme of work would attract government and the private sector, and catalyse and discussion between them.

### 5.4. The Big, Big Project – WOW

In addition to a comprehensive strategy of sustained activities across the sector, marketing campaigns are most successful when accompanied by a flagship project / programme. BIG ideas capture the collective imagination and attract budget allocations. It follows that the sector should identify a flagship project that demonstrates and illustrates the value of biodiversity and its role in the green economy.
6. **Next Steps and Early Victories**

The making the case for biodiversity process has generated a wealth of ideas and knowledge that will need a detailed action framework to be put into effect. Main elements of the framework are set out below.

**Develop a unified set of responses to debates about biodiversity.** The contradictions and debates within the biodiversity sector need to be streamlined to be presented as debates that inspire confidence in the sector and are able to inform nuanced policy and programme developments. This internal realignment is pivotal to the success of an inter-governmental communication strategy and will require strong scientific and political leadership;

**Develop messaging that reinforces the strategy:** Develop a simple messages document that can be used in communications about biodiversity. In this document, the rationale for the messaging strategy, narrative and core messaging should be explained, and a series of examples that advocate biodiversity using the new messaging should be provided;

**Build more detailed specific lobby strategies.** In addition to finding synergies between the needs of the biodiversity sector and needs of other sectors, sector specific strategies should include an analysis of which biodiversity related knowledge bases and decision support tools would be useful for that sector, and then streamlining access to this information and tools into those sectors. This kind of work is already underway, but additional work needs to be done to facilitate partnerships with Departments not traditionally associated with biodiversity concerns;

**Get the sector on message** The Making the Case strategy should target biodiversity supporters, waverers and opposers in all three tiers of Government. If the biodiversity sector is to influence Government, it also needs to reach a wider audience that extends to the Media, Eco-Family, Economists and General Public. The alignment must first happen across the whole of DEA and SANBI, and across the biodiversity sector;

**Agree on a detailed implementation plan:** A detailed resourcing and implementation plan for implementing the strategy needs to be developed. Importantly, this should include allocating the necessary human and financial resources to support this;

**Clarify coordination arrangements for implementation of the strategy:** It has emerged that it would be important for messaging to be coordinated from a centralized messaging hub in DEA or ion SANBI, and supported by an independent network of biodiversity partners. These options should be explored and a coordination mechanism should be agreed upon and institutionalized;

**Launch a few key interventions to keep momentum going:** Several interventions were identified as options in the implementation strategy and some of these should be launched immediately. These could include infographics; specific valuation exercises that provide specific answers in support of the messaging strategy; fundraising proposals that embody the proposed messaging and profiling at the UNFCCC COP in Durban in late 2011; and,
Commission further phases of work: Initiate further phases of 'Making the Case'. Further phases could include examining messaging strategies for local and provincial government, and for the private sector.
ANNEXURE A: STAKEHOLDER ANALYSIS

(SEE FILE: ANNEXURE A STAKEHOLDER ANALYSIS.PDF)
ANNEXURE B: DESK-TOP RESEARCH SOURCES

SANBI Publications (hardcopy and web)

- Sustaining life in the Fynbos (Not dated)
- Biodiversity business 2006 to 2008 case studies
- Succulent Karoo Ecosystem Program Sustainable Futures Undated Case Studies
- New Book Chapters in development “Biodiversity for Development” 2010
- Celebrating Conservation Project Highlights 2004-2010
- The South African Grasslands Programme Interventions summaries (Undated)
- M and E case study 2008, Working for Water, Making the case for water security and maintaining political support
- Stewardship Case Study 2009, “Reducing rates and Taxes for those who protect biodiversity on private land

Key Research Papers

- Blignaut et all 2008 Making Markets Work for People and the Environment
- Branding Biodiversity, Futera Sustainability Communications (undated)
- UNEP 2010, Dead Planet Living Planet Nellemen C.E. Corcoran (eds)
- UNEP 2008 Towards Decent Work in Sustainable Low carbon World

Other Resources Include

- M and G, Guardian Environment
- Blogs by Richard Black, George Monbiot
- Branding Biodiversity, Ogilvy Earth, McKinsey, Cambridge University

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ANNEXURE C: THE BIODIVERSITY DEBATES

Debate 1: Do the Champions of Biodiversity Appreciate Developmental Priorities?

Locally and internationally, biodiversity is still largely equated with conservation and has been considered a preoccupation of the “haves” rather than the “have-nots”. This sentiment, misguided as it may be, is supported by the history of isolationist conservation policy in South Africa and the perception that post-Apartheid conservation methods are supporting an elitist eco-tourism industry rather than broad-based black economic empowerment and land reform. Conserving nature and developing economic potential are still seen as opposing rather than complementary and supporting activities.

In order for the biodiversity sector to gain relevance within government, biodiversity needs to be repositioned as having significant value to society. Conservation areas needs to be reframed in relation to the broader ecosystem values they generate so that their intrinsic value to society can be better understood.

The biodiversity sector needs to drive the process of developing an understanding of the complementary relationships between economic development and biodiversity conservation through proactive engagements with other sectors.

Debate 2: Have We Undervalued South Africa’s Biodiversity?

UNEP 2010 estimates biodiversity value at 100% of global GDP (US$ 72 Trillion) because of the role it plays in underpinning life on earth. This is known as a bold value, and encompasses the costs of sustaining human life. South Africa, on the other hand, estimates biodiversity to be worth 7% of our GDP, valued at R73 Billion. This approach is based on a conservative approach in which nature is commodified to produce specific use values for different ecosystem services and species (Turpie et al 2009). This approach, while economically legitimate, limits the range of values ascribed to biodiversity by limiting them to those quantifiable by environmental economists. Quantification techniques are still being developed and many important values have not yet been ascribed to biodiversity. This undervaluation will continue until a more holistic range of valuation techniques have been widely tested and are broadly accepted.

Debate 3: How can our Constitution Balance Economic Development and Biodiversity?

The Constitution states that the rights of South Africans include: “An environment that is not harmful to their health and well-being and have the environment protected for the benefit of present and future generations”. This, along with other constitutional rights to clean water, food security and education make balancing economic development and biodiversity concerns a constitutional issue. The biodiversity sector needs to capitalize on this when mainstreaming its needs. It is the responsibility of the government as a whole to uphold the constitution, and
therefore it is the responsibility of senior government to support the development of symbiotic and complementary relationships between environmental, economic and social rights. The pressures to sacrifice environmental rights for immediate social and economic concerns needs to be reframed in relation to the impacts of these actions on the sustainability of broader constitutional rights.

**Debate 4: Do We Demonstrate Case Histories or Projections?**

There has been insufficient economic monitoring and evaluation of the broader value of biodiversity. Biodiversity related successes are usually considered in relation to conservation, rather than a wider context, and there is an urgent need for demonstrable evidence to support the case for biodiversity. This evidence can be presented as case histories, or future projections, and decisions need to be made within the biodiversity sector regarding where to focus research in developing this evidence.

In addition to work done within the sector, mainstreaming the importance of monitoring and evaluating the value of biodiversity to the economy will ensure that the biodiversity begins to be valued outside of the sector. The biodiversity sector does not have the financial nor technical resources to keep up with the constant need for updated information. The true value of biodiversity will only emerge if there is sufficient buy-in from economic and financial institutions able to produce ongoing economic valuations.

**Debate 5: Are there Compelling Business Cases for the Green Economy?**

The principles behind a Green Economy are widely accepted and significant support has been provided to realise the potential of the green economy for sustainable economic development in South Africa. Unfortunately, within the sphere of green economic activities, biodiversity is still primarily associated with conservation and eco-tourism related activities, many of which have not produced significant enough economic returns nor provided sufficient poverty alleviation opportunities. For example, the African Transfrontier Conservation Areas (TFCA) has a conservation focus and offers a number of economic opportunities. There is an opportunity to strengthen biodiversity-based job creation initiatives and to provide in-depth business support programs for communities or entrepreneurs.

**Debate 6: What Large-Scale Projects are Being Initiated?**

Between 1989 and 2011, Australian and British Trust for Conservation Volunteers initiated a Government job creation for youth and unemployed, creating biodiversity corridors linking hot spots. Mass labour intensive planting techniques were undertaken. Success was measured in kilometres of corridors planted and thousands of trees planted daily. South Africa’s “Working For” programmes have provided similar initiatives and have been lauded internationally for their successes. However, these jobs are considered poverty alleviation jobs, not long...
term sustainable (or “green”) jobs, and additional initiatives need to be conceptualised that can drive long term economic contributions from the biodiversity sector. Biodiversity related economic opportunities need to be considered in relation to all sectors, not just the conservation sector.

Debate 7: Can Agriculture and Biodiversity Become Allies?

The need for food and the need for biodiversity are seen by many as opposing forces. This view derives from the traditional tensions between certain agricultural practices and their impacts on biodiversity. An ecosystems-based approach to agriculture, however, is demonstrating the intrinsic relationship between biodiversity and agriculture and this relationship needs to be further understood and widely publicised. Basic processes, essential to many agricultural practices, such as pollination and the provision of clean water, are the product of biodiversity. Awareness needs to be raised regarding these processes so that an alliance can be built between biodiversity and agriculture, particularly in relation to ecosystem-based adaptation strategies to combat the negative effects of climate change as well as improved agricultural practices for better biodiversity gains.

Debate 8: Can Mining and Biodiversity Become Allies?

As with agriculture, the need to exploit South Africa’s mineral resources and the need to protect its biodiversity are seen by many as opposing forces. The long-term sustainability of South Africa, and of communities living in mining areas in particular, needs to be carefully considered when trying to find synergies between the two sectors. A number of mutually beneficial partnerships between mining and biodiversity sectors are being explored.
ANNEXURE D: DISCUSSION GUIDE

(SEE FILE: ANNEXURE D DISCUSSION GUIDE.PDF)
ANNEXURE E: RESEARCH POWERPOINT SLIDES

(SEE FILE: ANNEXURE E RESEARCH POWERPOINT.PPT)
ANNEXURE F:  WHO HOW WHAT WOW POWERPOINT SLIDES

(SEE FILE: ANNEXURE F WHO HOW WHAT WOW.PPT)
ANNEXURE G: SECTOR SPECIFIC LOBBY STRATEGIES

The general narrative and core message of the ‘Making the Case’ process are the foundation on which more detailed, sector specific lobby strategies can be built. Critical to the success of a communication strategy is a combination of generic messaging and sector specific messaging able to capture broad based attention and interest while motivating sector specific actions.

Motivating sector specific actions involves gaining an understanding of the degree to which biodiversity concerns intersect with the concerns of other sectors and mainstreaming biodiversity related actions into existing action plans. The introduction of the National Outcomes by the Presidency has streamlined sectoral concerns into societal concerns on which departmental performance will be measured. These outcomes are a good starting point when looking for areas in which biodiversity may have overlapping concerns with other sectors, but detailed stakeholder analysis, including looking at departmental visions, mission and values statements and strategic plans is also necessary.

In addition to finding synergies between the needs of the biodiversity sector and needs of other sectors, sector specific strategies should include an analysis of which biodiversity related knowledge bases and decision support tools would be useful for that sector, and then streamlining access to this information and tools into those sectors. This kind of work is already underway through programmes like the Grasslands Programme, but additional work needs to be done to facilitate partnerships with Departments not traditionally associated with biodiversity concerns.

In-depth interviews conducted for the ‘Making the Case’ process provide a starting point for the development of sector-specific lobby strategies for the Finance; Governance; Rural Development / Land Affairs; Water and Research sectors.

Interviews were conducted with senior officials from:

**Finance:** the Development Bank of South Africa (DBSA);

**Governance:** the Presidency; the National Planning Commission (NPC); and the Department for Cooperative Governance (DCOG);

**Rural Development / Land Affairs:** the Department of Rural Development and Land Reform (DRD LR); the Department of Agriculture, Fisheries and Forestry (DAFF);

**Water:** the Department of Water Affairs (DWA); the Working for Water Programme (WfW);

**Research:** the Department of Science and Technology (DST); the National Research Foundation (NRF); the Council for Scientific and the Industrial Research (CSIR)

Drawing on the overall approach of the ‘Making the Case’ process, this summary looks at the word associations (attention), key interests (interest), knowledge needs (desire to action) and networks of organisations from these sectors. The implications of these findings are then summarized in an ‘immediate opportunities’ section at the end of each sector summary.
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**Financial Sector**

Interviewed: Senior representatives from the Development Bank of South Africa Policy Unit and Environment Unit.

Word Associations: The interviews suggest that in the financial sector, biodiversity is still strongly associated with conservation and the links between biodiversity and climate change, sustainable development, poverty alleviation and ecosystem services have not yet been made. From this perspective, biodiversity is perceived as a very ‘green’ issue, rather than a mainstream development issue. Shifting this perspective towards a more holistic understanding of the importance of biodiversity to society is crucial to mainstreaming biodiversity concerns into the financial sector.

Key Interests: Development finance (public and private); infrastructure development; biodiversity related fiscal mechanisms; concrete values of biodiversity to poverty alleviation and job creation; the green economy, the knowledge economy and practical projects that the bank can fund. There is increasing pressure from the international finance community for all bank projects to address sustainability through having a clear poverty alleviation angle, and a clear environment angle.

Knowledge Needs: The DBSA noted a particular interest in biodiversity related land use planning and decision support tools. They were not aware of the full extent of knowledge resources available from SANBI that could support the sustainable implementation of bank projects, but showed an interest in learning more.

Networks: The DBSA works closely with Municipalities through their infrastructure development programme and has good working relationships with the Industrial Development Corporation (IDC) and the National Planning Commission (NPC). The DBSA plays an influential role in the finance and governance sectors and if properly informed and motivated, could play an important role in generating buy-in from stakeholders in these sectors.

Immediate Opportunities:

"The DBSA simplistically has two resources, money and knowledge... so we have got money and knowledge to resolve these issues. We finance infrastructure projects and public and private projects but we recognise that money alone won’t solve these issues, project finance won’t solve them although infrastructure is key to deal with all these issues, so we bring in the knowledge. We ask ourselves what knowledge can we bring forth to solve the development challenges in South Africa?"

The DBSA is in the process of establishing an environmental section and the associated ‘green’ terminology within the bank. This presents an important opportunity for SANBI to provide the bank with knowledge resources and institutional insight to support their internal processes. Supporting the bank in their efforts to understand the relationships between environmental issues and sustainable development issues would allow SANBI to mainstream biodiversity onto the banks agenda. In addition to their internal knowledge needs, the bank is also deeply concerned with moving South Africa “away from a resource extractive economy, into a more knowledge technology economy”. A collaboration between SANBI and the DBSA around developing biodiversity / ecosystem services related knowledge based economic activities could assist with the financial sustainability of SANBI and the overall interests of the DBSA. The CEO of the DBSA has a particular interest in environmental issues and is a potential champion for the biodiversity sector.

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Governance

Interviewed: Senior representatives from the Presidency; the National Planning Commission (NPC); and the Department for Co-operative Governance (DCoG);

Word Associations: The governance sector noted that they related best to concepts like ecosystem goods and services, sustainable development and rural resilience. There was still a residual connotation of conservation associated with biodiversity, and a warning against the negative effects of emotional ‘greenie’ arguments that are seen as being self-serving. The connections between biodiversity and concepts such as ecosystem services and sustainable development need to be more clearly outlined, but the governance representatives also commended the biodiversity sector for raising the profile of biodiversity and environmental issues in general.

Key Interests: The governance sector is primarily concerned with ensuring that national outcomes are developed and achieved; development planning; and job creation and poverty alleviation. In relation to biodiversity, Outcome 10 was highlighted as an important vehicle for the biodiversity sector to mainstream its agenda across government departments. The governance sector indicated an interest in solid science that supports environmental arguments and clear case studies to demonstrate the implications of statements.

Knowledge Needs: It was strongly stated that the governance sector is interested in the science behind biodiversity related statements. The sector did not shy away from the complexities of biodiversity science, but also encouraged the biodiversity sector to present their knowledge in a practical and effective manner so that complicated scientific concepts could be related to everyday concepts and properly understood. Examples from Europe and America were cited by senior government officials of why biodiversity conservation is not seen as being that important to the industrial sector. Local examples need to be found to convince them that biodiversity is indeed a sustainable development priority in the industrial sector.

It was strongly suggested that rather than focusing on biodiversity related symposia and conferences, the sector should be proactive and develop a presence at symposia and conferences in other sectors, particularly the mining, agriculture, food security, water and development planning sectors. It was also suggested that the international implications of national biodiversity management should be showcased to highlight the importance of the issue to senior government.

Networks: The Presidency sets the tempo for trends in the governance sector, but communication is multi directional throughout the sector and making inroads in the National Planning Commission and DCoG is equally important.

Immediate Opportunities: The Presidency, supported by other Departments, indicated that the Department of Environmental Affairs must be the primary champion of biodiversity related issues, with SANBI as a supporting institution, not a leading institution. SANBI and DEA need to clarify their relationship in this regard and organise their public activities to support the wishes of the Presidency. Immediate actions for the governance sector include linking biodiversity to the immediate challenges faced by the governance sector and presenting case studies and solid science to senior government forums through high-level scientists. Expanding on programmes like the Grasslands programme to mainstream biodiversity concerns across all relevant sectors by addressing the concerns of target sectors and creating a voice for biodiversity in those sectors in a practical and useful way is also important.
The governance representatives urged the biodiversity sector to be specific when asking for additional resources and highlighted the importance of making clear links between requests for additional resources and the tangible benefits of biodiversity related activities to society. Current biodiversity funding agenda’s are associated with more land for conservation, which is seen as somewhat counterproductive to the national land reform agenda. Demonstrating positive examples in which the biodiversity sector has assisted land reform initiatives through stewardship agreements and land management support to new owners is crucial before pushing for additional resources.

**Rural Development / Land**

Interviewed: Senior representatives from the Department of Rural Development and Land Reform (DRDLR); the Department of Agriculture, Fisheries and Forestry (DAFF);

Word Associations: The interviews suggest that in the rural development / land affairs sector, biodiversity is still strongly associated with conservation and the links between biodiversity and climate change, sustainable development, poverty alleviation and ecosystem services have not yet been made. From this perspective, biodiversity is perceived as a very ‘green’ issue, rather than a mainstream development issue. Shifting this perspective towards a more holistic understanding of the importance of biodiversity to society is crucial to mainstreaming biodiversity concerns into this sector.

Key Interests: The rural development / land sector is primarily concerned with rural infrastructure; poverty; the legacy of Apartheid on land and access to resources for historically disadvantaged communities; agriculture, forestry, food security; soil management; tourism; genetic resources; economic and community benefits from conservation; negative effects of conservation (wildlife) on rural communities; and proper environmental management. There are many overlaps in this sector with biodiversity concerns, but the connections need to be made in a positive way that reinforces the concerns of the rural development / land sector.

Knowledge Needs: The rural development / land sector understands the importance of biodiversity, but has not yet made direct links between the seemingly intangible concerns of the biodiversity sector and the very immediate and tangible concerns of rural development, land reform, agriculture, fisheries and forestry. Making clear links between biodiversity and ecosystem services is an important area in which SANBI knowledge resources can support the work of the rural development / land sector. The sector is aware of some SANBI decision support tools and knowledge resources, but they have not become everyday tools in the sector and still need to be mainstreamed.

Networks: DRDLR and DAFF have strong working relationships with rural communities and can be mobilised to mainstream biodiversity concerns to farmers and the rural poor if they can make meaningful connections between biodiversity and their existing objectives and programmes of work.

Immediate Opportunities: A new unit has been established in the Department of Agriculture, Fisheries and Forestry – National Resource Management Unit – which is centrally concerned with water, soil, disaster management and climate change. This Unit will play a critical role in the sectors understanding of biodiversity related issues and should be targeted for information sharing and partnerships. In addition to the new unit, several existing programmes have been highlighted by representatives as having potential synergies with the biodiversity sector, including the Rural Youth Core Programme (to communicate biodiversity messages to households and youth) and the Land Care
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Programme (to mainstream biodiversity issues into land care). It was also noted that the DRDLR employment creation model may be useful for developing biodiversity related employment projects.

Water

Interviewed: Senior representatives from the Department of Water Affairs (DWA); the Working for Water Programme (WfW);

Word Associations: The water sector strongly prefers an ecosystems / ecological function approach to biodiversity, both because it’s easier to understand, and because it aligns more strongly with more general water related ecosystem service interests of the sector. SANBI was associated with the former NBI rather than a broader spectrum of biodiversity interests and the sector highlighted the importance of changing this perception amongst government decision makers.

Key Interests: The water sector is primarily interested in water related biodiversity and socio-economic issues, including the sustainable management of water and catchments for social, economic and ecological needs. Natural resource management through job creation and poverty alleviation was also highlighted as being a key interest of the water sector.

Knowledge Needs: Representatives from the Department of Water Affairs (DWA) noted the need to find a concrete socio-economic lens through which to address biodiversity issues. The need for all biodiversity related research to include a socio-economic angle was noted as being crucial to raising the status of biodiversity and the water sector referred to their success in mainstreaming water issues as an example of how embracing socio-economic concerns can unlock important opportunities. It was suggested that the biodiversity sector needs to assess the knowledge needs of all sectors (especially EPWP, DRDLR, DWA, DME) and make their knowledge resources available in a form usable by non-specialists.

Networks: The water sector noted the benefits it gained from aligning itself strongly with non-traditional partners, such as the Department of Minerals and Energy, and suggested the biodiversity sector do the same.

Immediate Opportunities: The water sector has several biodiversity related programmes of action underway, including the development of Catchment Management Agencies. The biodiversity sector needs to support these initiatives and mainstream biodiversity into them through demonstrating common goals and providing capacity building and knowledge sharing opportunities.

Research

Interviewed: Senior representatives from the Department of Science and Technology (DST); the National Research Foundation (NRF); the Council for Scientific and the Industrial Research (CSIR)

Word Associations: The research sector is well acquainted with the nuances of biodiversity and did not refer to the oversimplified interpretations common in other sectors. However, it was noted that SANBI itself is still strongly associated with the former National Botanical Institute rather than the full spectrum of biodiversity. It was also noted that ecosystem services as a concept sells better than biodiversity and that an effort should be made to clarify the linkages for non-specialists.
Key Interests: The research sector is primarily concerned with the promotion of science and research, knowledge generation and the development of a robust knowledge economy in South Africa. Particular subject interests mentioned by the Department of Science and Technology (DST) included biodiversity, bio-technology, earth systems science, global change and risk vulnerability.

Knowledge Needs: The research sector recognises the important role that the biodiversity sector plays in producing knowledge, but highlighted the fact that few other sectors are aware of the full spectrum of knowledge products available from the sector, and the full potential of these resources. It was suggested that the biodiversity sector mobilise interest in its knowledge resources and find creative ways to market these resources to generate income. It was also suggested that funding applications should focus more on upgrading data gathering, data management and data usage aspects of the biodiversity sector to expand their knowledge footprint. An expanded knowledge footprint expands opportunity for knowledge related products and independent income generating opportunities.

Networks: The DST is in the process of establishing risk vulnerability centres in rural universities and noted an opportunity for the biodiversity sector to collaborate and mainstream itself amongst rural learners.

Immediate Opportunities: The research sector emphasized the importance of using high level scientists to demonstrate the importance of biodiversity to parliament, the national planning commission and other government structures. Raising the profile of biodiversity through the use of case studies (Hartebeestpoort Dam mentioned) and high profile scientists was strongly recommended, as was focusing on investment in knowledge production and scientific research. Developing a knowledge economy strategy for the sector is an immediate action to mainstream the biodiversity sector into the green economy without straying from the core functions of the sector.
ANNEXURE H: THE DETAILED AIDA STRATEGY

A Gaining Attention

A1 Gaining Attention – DEA / SANBI Biodiversity Relevance Launch

The campaign could be officially launched by its lead partners, DEA and SANBI.

Biodiversity Day is an ideal date for DEA and SANBI to begin the Making the Case campaign by:

- Making the narrative the centrepiece of any talks and discussions
- Releasing the first Infographics
- This is not a big jamboree, rather the first step along a path

**Actions required:** DEA and SANBI to agree on campaign concept and launch date

**Indicative costs:** SANBI and DEA staff time, consultant support

A2 Gaining Attention – Infographic Posters / Ads

Information graphics or infographics are visual representations of information, data or knowledge. These graphics are used where complex information needs to be explained quickly, clearly and memorably.

They can range from stylised charts to art. (See the PowerPoint presentation for examples.)

We recommend producing a series of infographics, each poster size (A2, or larger) to go on walls and notice-boards in government departments across the three tiers. Copies of the posters should also be available to other interested parties – such as media, NGOs, universities and colleges. Infographics would also make powerful ads in appropriate publications, if there were budget available. Sample publication: MandG Greening the Future issue. Smaller Infographics would be suitable for publication by media, perhaps as a series exclusive to one publication, as well as appearing on Government Intranets.

Topics for these Infographics could include:

- Jobs and Biodiversity
- Rural Development and Biodiversity
- Economic Growth and Biodiversity
- Health and Biodiversity
- Food and Biodiversity

The strapline: **Biodiversity - Powering the Green Economy** – should feature on all Infographics

**Actions required:** Identification of infographic topics and supporting information

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Indicative costs: Infographics and Z-fold brochures: Copy and artwork R10 000, Brochure R10 000, printing not included

A3 Gaining Attention – Publicity

Initial publicity will focus on the narrative and unpacking the meaning of the strapline, using the facts in the Infographics as support. Ongoing stories demonstrating the economic benefits and jobs created through biodiversity must be found and channeled to a variety of publications. We recommend a publicity company be engaged for this purpose.

Actions required: Engagement of Publicity Company

Indicative costs: Monthly fee R50 000

A4 Gaining Attention – Sponsored TV Ad

We suggest DEA/SANBI approach MasterCard with a proposal to adapt their “Priceless” series of TV commercials. An outline of what is envisaged is set out in the box below.

<table>
<thead>
<tr>
<th>The commercial could start with the title:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>What is Biodiversity in South Africa worth, yearly?</td>
<td></td>
</tr>
<tr>
<td>Visual of dung beetles doing their thing</td>
<td></td>
</tr>
<tr>
<td>Title: Dung Beetles  R50 million</td>
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<tr>
<td>Visual of family in a rowing boat in the wetlands</td>
<td></td>
</tr>
<tr>
<td>Title: Wetlands  Rxxx million</td>
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<tr>
<td>Visual of hikers in the Drakensburg</td>
<td></td>
</tr>
<tr>
<td>Title: Ecotourism  R12 billion</td>
<td></td>
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<tr>
<td>Visual of a butterfly landing on a child’s face:</td>
<td></td>
</tr>
<tr>
<td>Title: A child’s sense of wonder. Priceless.</td>
<td></td>
</tr>
<tr>
<td>Voice-Over: Biodiversity Powering the Green Economy</td>
<td></td>
</tr>
</tbody>
</table>

Actions required: DEA/ SANBI to approach MasterCard, with support from Freethinkers to underwrite production, SABC/DStv to give free time as a Public Services Announcement

Indicative costs: DEA/ SANBI staff time, Freethinkers consultancy time 2 days
A5  **Gaining Attention – COP17 Activation**

This is a unique opportunity for DEA/SANBI to share a world stage and present biodiversity as a natural way of mitigating and adapting to climate change and an opportunity to develop the Green Economy.

Following a presentation of vertical gardens, the following has been suggested:

*Hives of Hope*: Two versions of Zulu beehive shaped huts, constructed of indigenous plants, to be created for COP 17; one to be in Moses Mabhida Stadium, one for delegates in precincts of ICC.

This is the designer's sketch:

The Hive would be 10 metres high and designed as a place of rest and reflection, with the sounds of a waterfall and stream and gently rolling lawns, like the hills of KZN.

Whilst there needs to be references to how Biodiversity can help us adapt to climate change and power the green economy, the experience must be one of peace and quiet joy. Amongst all the negatives associated with climate change, biodiversity needs to be seen and felt as a positive, good, part of the solution.

*Actions required: SANBI to work with DEA to gain acceptance of idea, and to develop and implement detailed work plan*
B Gathering Interest

Once attention has been captured, it is crucial to be able to inspire real interest in the subject through providing easily accessible information. Currently, biodiversity related information is sector specific and jargon filled. Information that captures the interest of other government sectors must appeal to people with no existing interest or knowledge of the subject. Eight interest generating information sources have been suggested.

B1 Gathering Interest – Dedicated Website and Social Media

As attention is aroused, many will want to know more – including media, academia, NGOs and Government representatives.

The natural place for them to go will be a website that is dedicated to demonstrating and promoting the value of Biodiversity Services.

The site should contain:

- Worth of individual and collective Biodiversity Services in South Africa.
- State of ecological systems and what can be done about them
- Case histories that demonstrate the economic worth of Biodiversity, highlighting permanent jobs created, job opportunities and skills learnt.
- Ideas to develop the Green Economy – enhanced by site visitor suggestions
- General facts about Biodiversity in South Africa and the World.
- Audio-Visual material – e.g. Caretakers series
- Links to other Biodiversity information (UNEP etc)

Social Media to include:

- Biodiversity Services blog linked to the site
- Active Twitter account, referring to relevant Biodiversity news, locally and internationally

Actions required: DEA/ SANBI (Making the Case Coordination Hub) to refine concept

Indicative costs: Website content management system setup R60 000 plus monthly maintenance and hosting fees

B2 Gathering Interest – Pictorial Map and Barometer

A biodiversity map of South Africa that shows the many and varied economic activities provide by biodiversity services.
Options: the biodiversity map either can be illustrations or a tapestry with beadwork. Ref: PowerPoint shows part of a tapestry made by Kopanang Community Trust who have produced internationally exhibited tapestries. Ideally, we would like to see a large tapestry map of South Africa showing biodiversity in parliament. Also there would be smaller tapestry wall hangings that could be sold and/or given as gifts to visiting dignitaries.

The Biodiversity Barometer would be a visual gauge of economic benefits deriving from Biodiversity. It can be updated on a quarterly or half-yearly basis and used for publicity as well as milestones for Government.

*Actions required: DEA/SANBI (Making the Case Coordination Hub) to refine concept*

*Indicative costs: R100 000*

### B3 Gathering Interest – Specific Lobbying

Building on the insights set out in Annexure H, undertake sector specific lobbying.

- Core Message: Value of Biodiversity for your Department
- Objectives: Feed the allies; Give doubters pause for thought
- Strategy: Relate directly to individual challenges of specific Departments

Specific suggestions are set out in the table below.

<table>
<thead>
<tr>
<th>Parliament</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Living Wall” gift to Parliament</td>
<td>Annual authoritative biodiversity review, new theme each year - e.g. Biodiversity and jobs</td>
</tr>
<tr>
<td>Briefing to Environmental Portfolio Committee - Script for CEO and DG</td>
<td>Cabinet memos on at least 4 topics per annum – presentation linked to key decision-makers</td>
</tr>
<tr>
<td>Display at Budget Speech – info graphics “rotate to provinces</td>
<td>Biodiversity dialogue – Planning Commission</td>
</tr>
<tr>
<td>Get biodiversity into Ministers Budget speech</td>
<td>Conference and events e.g. annual conference on theme covered by annual report</td>
</tr>
<tr>
<td>Take home gifts for MP’s that showcase the new vision</td>
<td>Involve other ministers in launching jobs projects/ribbon cutting especially EDD, dti, RDLR, DAFF, DST</td>
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<tr>
<td></td>
<td>NBSAP linked to MTSF, MTEF, PGDS, IDP “mainstream planning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Local and Provincial</th>
<th>Influencers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase SANBI services on land use and decision</td>
<td>Gender and biodiversity forums, rural women and</td>
</tr>
</tbody>
</table>
### Making the Case for Biodiversity

#### Phase 1: Project Summary Report

<table>
<thead>
<tr>
<th>Making</th>
<th>Job creation...Mega conference</th>
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</thead>
<tbody>
<tr>
<td>Green cities window in large cities support programme</td>
<td>Celebrity ambassadors to take message into key sectors</td>
</tr>
<tr>
<td>Lobby COGTA and SALGA to take up biodiversity issue</td>
<td>Quarterly editors briefings on topical themes, backed up by Twitter</td>
</tr>
<tr>
<td>Recognize best performing municipality annually linked to annual report</td>
<td>Target key influencers in business</td>
</tr>
<tr>
<td></td>
<td>DFI’s – make new pitch of new approach and product</td>
</tr>
</tbody>
</table>

**Actions required:** DEA/ SANBI (Making the Case Coordination Hub) and to agree on scope and modality

**Indicative costs:** To be determined

### B4 Gathering Interest – Big Name PowerPoint Show

This would be the Biodiversity equivalent of “An Inconvenient Truth” and would need to be presented by a South African who has status and commitment. The mining community, in Government and business, would be the ideal prospects for such a roadshow and so it is vital, if this initiative is to succeed, to engage with someone who speaks their language, knows their issues and whom they would respect.

**Actions required:** DEA/ SANBI (Making the Case Coordination Hub) to refine concept

**Indicative costs:** DEA/ SANBI staff time, graphic and layout support, staging costs, R300 000

### B5 Gathering Interest - Parliament Science Lectures

There are plans to hold monthly science lectures/talks for members of parliament. It is beneficial to support this and to offer to give up to three biodiversity related talks a year.

**Time talk, along with an exhibit in Parliament, when presenting to Portfolio Committee**

**Actions required:** DEA/ SANBI (Making the Case Coordination Hub) to refine concept

**Indicative costs:** DEA/ SANBI staff time

### B6 Gathering Interest – Vertical Gardens

Show Biodiversity in Action with Vertical Gardens, as a follow-up to COP17.
Making the Case for Biodiversity

- Investigate the possibility of moving Hives of Hope to permanent places
- Create Vertical Gardens at Union Buildings and Parliament
- Moveable Vertical Gardens to travel to Municipalities

*Actions required: DEA/ SANBI (Making the Case Coordination Hub) to refine concept*

*Indicative costs: R2 000 000*

**B7 Gathering Interest – Feed the Eco-Family**

Schedule workshops with the civil society part of the biodiversity sector (NGOs, community-based organisations, private sector, tertiary and research institutes etc.) that focus on alignment with Government Priorities. Become the purposeful, pragmatic voice of the sector.

*Actions required: DEA/ SANBI (Making the Case Coordination Hub) to refine concept*

*Indicative costs: Staff time and workshop costs R20 000 per workshop*

**C Desire to Action**

The purpose of capturing attention and generating interest is ultimately to motivate action. Sector specific strategies should incorporate targets for specific actions for each department. Activities that support creating a ‘desire to action’ include:

**C1 Desire to Action – Motivations for Creation of jobs through Presidential Jobs Fund**

The motivations should centre on:

- Cost-effective job creation
- Upstream/downstream economic benefits
- Specific projects that can be speedily implemented

*Actions required: SANBI to lead on drafting proposal on behalf of biodiversity sector*

*Indicative costs: SANBI staff costs*

**C2 Desire to Action - Testimonials from Doubters**

Sceptics are unlikely to change unless another former sceptic convinces them. These testimonials (two to three would be sufficient) come from significant doubters who have been converted, and are targeted at doubters who remain to be. Ideally, they would be on video at the website and as part of the PowerPoint roadshow.
Actions required: DEA/ SANBI to refine concept

Indicative costs: R20 000

C3 Desire to Action – Field Trips

It would be fascinating to take along Government officials with their children on an overnight field trip. It is suggested that this forms part of the lobbying strategy.

Actions required: DEA/ SANBI (Making the Case Coordination Hub) to refine concept

Indicative costs: To be determined

C4 Desire to Action – Biodiversity Maps and Corridors

Show practicality and value at a municipal level; this may need regional workshops and a map expert available to help with ongoing queries.

Actions required: Improve SANBI’s online maps to be user friendly, easily accessible and address server and user constraints

Indicative costs: R20 000 000

C5 Desire to Action - Biodiversity and Eco-Tourism

Develop tourist friendly maps showing Biodiversity routes and nodes in association with SA Tourism. This could include a road atlas with biodiversity and natural features that could be sold commercially. This could also attract a commercial sponsor – such as Avis, the AA, the Map Studio. A link with the department of Tourism could also be explored.

Actions required: DEA/ SANBI (Making the Case Coordination Hub) to refine concept

Indicative costs: DEA/ SANBI staff time, with sponsorship

C6 Desire to Action – Sectoral Workshops

The purpose of these workshops is to entrench “Powering the Green Economy” by a series of practical applications. Examples include:

- Greening Agriculture
- Greening the Water Sector
- Greening Fisheries
- Greening Cities
- Greening Investment and Innovation

Phase 1: Project Summary Report
Making the Case for Biodiversity

- Greening Public Financing

This programme of work would attract government and the private sector, and catalyse and discussion between them.

**Actions required:** DEA/ SANBI (Making the Case Coordination Hub) to refine concept

**Indicative costs:** To be determined

**D The Big, Big Project – WOW**

In addition to a comprehensive strategy of sustained activities across the sector, marketing campaigns are most successful when accompanied by a flagship project / programme. Big ideas capture the collective imagination and attract budget allocations. An example in this sector is “Working for Water”, but new examples are need to build on the momentum generated by the Working For programmes. Four ideas that need further debate are set out below.

- 1 Million Trees / Month (Australia): Corridors of Eco-Power, following the Australian model.
- Working for Us: 100 000 Eco-Entrepreneurs; Wildlands has shown the way be creating thousands of “treepreneurs”
- COP 17 Legacy: Creating Hives of Hope / Walls of Hope throughout South Africa, celebrating local biodiversity
- Urban Forests: Involving the creative community to create outdoor posters and hoardings calling everyone to plant more indigenous trees and enhance biodiversity. These posters and hoardings are later recycled as bags. See the Urban Forest Project: [http://www.ufp-global.com/](http://www.ufp-global.com/). Possible funders include Lotto and corporates.

**Actions required:** DEA/ SANBI (Making the Case Coordination Hub) to refine concept

**Indicative costs are not provided for here as these ideas require further development.**

It is noted that there is some work that is already ongoing and wherever possible and relevant, actions arising from the Making the Case work should align with, complement and/ or build on this effort.