

Using Biodiversity Stewardship as a Means to Secure the Natural Wild Values on Communal Land in South Africa

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Abstract—South Africa is one of the most biodiversity-rich countries in the world, with much valuable biodiversity situated on a range of different land tenure types, including state, private and communal land. Despite this, these wild lands are being lost at an unprecedented rate, with the resultant loss of natural areas and associated ecosystem services. The challenge lies in the need to protect the unique biodiversity, by integrating the development needs of poverty-stricken communities with the need to secure the remaining natural wild places, and thereby secure the very areas on which these communities rely for their daily requirements (water, firewood, medicinal plants).

Biodiversity Stewardship is increasingly becoming the principal strategy to secure land, in favour of more traditional methods such as land acquisition. This mechanism recognises landowners as custodians of their land, and promotes and supports the wise use and management of natural resources and biodiversity, through the form of voluntary legal agreements, thereby making rural landowners effective “stewards” of their land. This paper analyses discussions with three separate communities in the province of KwaZulu-Natal (South Africa) considering voluntary agreements, each highlighting the relevance of the Biodiversity Stewardship approach in securing areas under different types of communal land tenure. These communities are the Gumbi, AmaZizi / Amangwane and Mabandla communities. Collectively, they own and manage 61,600ha of land. This comprises the Somkhanda Game Reserve, 11 600 ha of land claimed by the Gumbi community through the land reform process in 2005, which was formally proclaimed as a protected area in 2011; the 45 000 ha Upper Thukela community area (land owned by the Ingonyama Trust), which is in the final stages of obtaining formal conservation security; and the 5 000 ha Umgano Reserve on state owned land, secured through multiple agreements.

These voluntary Biodiversity Stewardship agreements are characterised by innovative, pro-poor green enterprise-based approaches to sustainable development and the conservation of biodiversity. They aim to create a green economy where the conservation of ecosystems and biodiversity is the foundation of sustainable development and where a closer alignment of environmental and economic systems is imperative, ensuring direct community benefit through improved natural resource management.

Introduction

As a developing country that needs to reduce poverty levels and ensure sustainable livelihoods for its people, South Africa faces critical challenges relating to the need to protect biodiversity and at the same time implement programmes and policies that seek to address the inequalities within the broader society as a result of the country’s recent past. In addressing issues relating to sustainable development in South Africa, government policy has been redressed to formulate a New Growth Path, which needs to be achieved against a backdrop of South Africa being a mega-biodiverse country (Cadman et al. 2010). South Africa is ranked as the third most biologically diverse country in the world, with an exceptionally large proportion of endemism, including the Maputoland, Pondoland and Albany Centres of Endemism. As such, South Africa is not only a signatory to the Convention on Biological Diversity (CBD 1992), but also the Cancun Declaration of Like-minded Megadiversity Countries (2002). In addition, three global biodiversity hotspots straddle the national borders of the country. It is also the only country that has an entire plant kingdom within its national borders – the Cape Floristic Kingdom, and the only desert identified as a biodiversity hotspot. As such South Africa has a responsibility, from an international and national perspective, to properly protect the natural environment in pursuing this New Growth Path.

This paper explores a mechanism allowing the achievement of biodiversity security in the communal areas of South Africa, in a manner that allows sustainable development by the rural population relying on these areas for their daily needs.

South African Context

According to the latest census data, 53 million people live in South Africa (Statistics South Africa, P0302 - Mid-year population estimates, 2013). Despite rapid urbanisation,

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almost 40% of people still live in rural areas. These rural communities are mostly accommodated on land which is referred to as “communal land”, either being: a) state land (allocated through a government gazette notice to a specific community Traditional Authority); b) Ingonyama Trust land, established in 1997 to act as the landowner-in-law for the land held in Trust on behalf of His Majesty the Zulu King (incorporating approximately 2,8 million hectares); or c) land returned to its previous inhabitants through the Land Restitution programme (including 2.6 million hectares since 1995). For reasons relating to the past political system, rural areas under this communal land tenure (some 13–15% of total land surface) are characterised by extremely poor infrastructure, high levels of poverty and very few economic opportunities. As a result, there is a massive reliance of these people on the natural environment, resulting in South Africa’s natural resources being vulnerable to over-exploitation and misuse. Therefore, local people must be helped to plan local resource use and to manage and conserve their environment for the benefit of future generations (DRDLR 2009).

Linking Biodiversity to Human Livelihoods

Biodiversity continues to be lost at a rapid rate across the planet. The National Biodiversity Assessment 2011 (Driver et al. 2012) of South Africa points to multiple indicators of continuing decline in those components critical for rural communities to survive, including:

- a. Very low protection (only 18%) for South Africa’s critical “high water yield areas”;
- b. Wetlands being the most threatened of all South Africa’s ecosystems, with 48% of wetland types listed as critically endangered;
- c. River tributaries generally being in better condition and less threatened than main rivers, which tend to be hard working;
- d. Rates of natural habitat loss are high in many parts of South Africa;
- e. Almost 10% of the traded medicinal plants are listed as threatened;
- f. Coastal and inshore marine ecosystems are more threatened than offshore ecosystems.

With it being widely accepted that biodiversity is a critical and essential foundation of human well-being and economic activity, protecting the functioning ecosystems that provide the basic necessities of life through delivery and provision of a variety of ecosystem goods and services should be an essential component of our response to this knowledge (Cadman 2010). Natural resources, living systems and ecosystem services can be viewed as ecological infrastructure (the natural functional ecosystems that allow and form the basis of development), providing opportunities to support development and socio-economic activities and enables human communities to build sustainable livelihoods and attain an adequate quality of life.

This is most prevalent and visible in the rural areas of South Africa, where poor people depend directly on local natural resources (catchments, corridors or intact natural vegetation) for their daily existence. These people are usually the least able to afford substitutes, in the few cases where they exist. Maintaining and restoring ecological infrastructure allows

the diversification of rural livelihoods, creation of sustainable jobs, alleviation of poverty and the improvement of the quality of life of all South Africans. Responding to this requires a development path in which options for relieving pressures on biodiversity and ecosystems also provide opportunities for addressing poverty, securing essential services and addressing a range of other social improvement needs (Green Economy, UNEP, 2011).

The social and economic costs of not managing ecosystems in a sustainable manner are high. This is demonstrated through accelerated land degradation, biodiversity loss, loss of ecosystem resilience, loss of freshwater resources, increased infestations of alien plants, declines in fish stocks, reduction in water quality and quantity, and the deterioration of air quality, all of which were identified as areas of concern in the South African State of the Environment Report (DEAT 2008).

Globally there is therefore a recognition of the need to reduce the loss of natural resources resulting from unsustainable land-use practices, but at the same time manage and use these ecosystems and biodiversity in a way that caters for the development needs of growing populations (Cadman 2010). There are often direct conflict demands between these values, which are expected to worsen as a result of human-induced climate change. Therefore, development choices and land use decisions have a significant effect on the impacts on biodiversity, and therefore the resulting ability of rural communities to improve their livelihoods and quality of life.

Wildlands’ Strategy for Sustainable Development

The Wildlands Conservation Trust is a South African Non-Profit Organization, working to conserve South Africa’s biodiversity. It aims to achieve this through the development and facilitation of innovative solutions which take into account the unique biodiversity and socio-economic needs in South Africa today. Their VISION is “A Sustainable Future for All”. This Vision reflects the growing global awareness of the fragile state of our planet. The ever present threat of significant climate change is testament to this fragile state. Years of exploitation, pollution and willful destruction have degraded our planet’s life support systems. These ecosystems — oceans, rivers, wetlands, forests, grasslands, etc. — have been seriously damaged, and the ongoing increase in global population is putting further pressure on these systems. Wildlands Conservation Trust is therefore dedicated to reversing this situation, by using these ecosystems and their values as a means to stimulate a “green economy”, allowing communities to derive direct benefit from the environment and thereby ensuring its long-term conservation

The long-term preservation of South Africa’s wild lands and the conservation of its unique biodiversity therefore cannot happen in isolation. Many of the communities living in and around these areas live in poverty, and therefore rely heavily on the natural resources provided by the land for their daily requirements (water, firewood, medicinal plants). For this reason Wildlands has adopted a CEBA (Community Ecosystem Based Adaptation) model as a philosophical approach to where we work and what we do. CEBA moves beyond the more traditional concept of Ecosystem Based Adaptation (EBA), mainstreaming it into the green economy

as an adaptation tool that promotes social inclusiveness and sustainable development. The CEBA approach highlights the interconnectivity between local communities and their supporting ecosystems. Wildlands' growing footprint focuses on the ecological infrastructure supporting the delivery of ecosystem services (catchments, forests, etc.) and the communities that depend on these areas. Working at a community level, Wildlands partners with these communities to develop the tools that enable them to strengthen their ecosystems, making them more robust through activities such as the removal of waste from rivers and other natural systems, removal of alien plants, re-forestation of degraded forests, maintenance of healthy grasslands and the rivers, and the management of conservation areas as vital core areas and linkages in adaptation and mitigation corridors. Wildlands is therefore focusing on using conservation land use development as the means to encourage the improved sustainable management of the natural environment, based on the premise that responsible management of our natural assets, which are used extensively by these rural communities, is recognised world-wide as being a critical success factor for sustained economic development and the upliftment of all communities. In doing this, Wildlands has developed a four-pronged approach –

1. Developing a network of “Green-preneurs” across five of South Africa's provinces. These are individuals marginalised from conventional economic activities due to their location (living on communal land), as well as their lack of skills and training. Wildlands enables their participation in the green economy by creating a platform for them to barter indigenous trees (tree-preneurs) and recyclable waste (waste-preneurs) for livelihood support such as food, building materials, bicycles, solar panels and rain water harvesting tanks. Through this model, community ecosystems are restored and alternative modes of transport and energy introduced into the communities.
2. Community ecosystems are rehabilitated or restored using the resulting trees grown by the tree-preneurs.
3. Training and capacity building is a focus of our green-preneur teams, providing support on basic life skills and financial management.
4. Finally, identifying areas on communal land with high biodiversity value, and engaging and supporting the community in setting this land aside for conservation purposes, using the Biodiversity Stewardship mechanism, allowing the development of viable conservation related businesses.

These initiatives are focused on reducing the impacts to the core community conservation areas, which are characterised by innovative, pro-poor green enterprise based approaches to sustainable development and the conservation of our precious biodiversity, i.e. creating and stimulating a green economy where the conservation of ecosystems and biodiversity is the foundation of a sustainable economy, where a closer alignment of environmental and economic systems is imperative.

New Approach to Biodiversity Conservation

Over the past two decades, recognition has grown that the existing protected area network alone will not be adequate to conserve a representative sample of biodiversity and maintain functioning ecosystems. Maintaining ecological processes, and the services derived from these, requires management over larger areas of land, or landscapes, and conservation efforts need to extend beyond the boundaries of the protected area system (Cadman 2010). By nature of the communal land system in South Africa, a specific community may have a significant area of land allocated to it, from which the community derives its needs and economic benefits.

A community owned protected area forms part of the community's essential social and economic fabric and not merely a disused piece of land that can be fenced off to produce jobs and money through “ecotourism”. This perceptual shift extends further than surrendering previously held views of protected areas; from an IUCN perspective it will involve expanding our horizon beyond Category II (National Parks) and recognizing that broader biodiversity objectives, as well as those of priority species, can be better met with the additional and combined use of Categories III-VI (Natural Monuments, Habitat/Species Management Areas, Protected Landscapes and Managed Resource Protected Areas). In terms of South African law, the Biodiversity Stewardship mechanism was developed with this specific intention, to broadening our perspective beyond the “nature reserve” category to utilize additional categories and management agreements to secure our wild lands.

Biodiversity Stewardship Mechanism

In response to this thinking, the South African conservation community have developed an innovative programme namely the Biodiversity Stewardship programme (DEA 2009), to address this need. Biodiversity Stewardship recognises landowners/users as custodians of their land, including the biodiversity and natural resources. It is a mechanism that promotes and supports the wise use and management of natural resources and biodiversity, and the ecosystem services they provide, through the form of voluntary legal agreements with private and communal landowners/users. In this regard, a formal protected area becomes only one of the options available to the community in generating appropriate land use options, as it also provides an array of other more flexible options for the landowner. The Biodiversity Stewardship Programme focuses on priority biodiversity areas, as identified through Systematic Conservation Planning processes, creating an enabling environment in which functional partnerships with all relevant landowners inside and outside protected areas are fostered where natural resource maintenance and management is a demonstrated goal, ensuring the sustainable management and utilisation of biodiversity resources. This innovative approach is therefore required that will enable, encourage and assist communal landowners to protect priority species and habitats. In return, the Biodiversity Stewardship concept allows the role of landowners to be recognised in conservation activities, by

providing incentives and benefits to the landowners to compensate them for possible restrictions on their land directed towards conservation as the land-use. The key principles of biodiversity stewardship include:

- Focus on priority biodiversity and protected area expansion areas to ensure the best use of limited capacity and resources, aiming for formal declarations of high biodiversity value land.
- Support South Africa's broader socio-economic objectives through the land reform process and encourage socio-economic benefits, either through job creation, or improved land management.
- Biodiversity stewardship agreements are voluntary commitments between landowners/users and conservation agencies. A relationship of trust and support should be fostered, both in entering into agreements, and going forward.
- The landowner remains owner and manager of the Biodiversity Stewardship Site.
- The monitoring and evaluation function that forms an integral part of the programme ensures continued interaction with stakeholders and their support for conservation, while ensuring the identification of problems at an early stage, enabling conservation agencies to address these effectively.
- The success of biodiversity stewardship rests on partnerships and co-operative governance between conservation agencies and various other governmental agencies, NGOs, landowners/users, companies, etc.

The hierarchy of Biodiversity Stewardship is one of the fundamental features of the programme. It allows the stewardship tool to be applicable across the landscape, and provides a mechanism for landowners to move from less

formal to more formal conservation as they feel more comfortable. The various Biodiversity Stewardship categories available are shown in Figure 1.

The detail and differences of each Biodiversity Stewardship category are shown in Table 1.

Case Studies

Against this backdrop, many areas of South Africa are very rural in natural, characterised by extensive wild areas, many of which are still in good ecological condition. It is essential for South Africa's sustainable development that these areas are maintained and protected. The following section highlight the process of implementing the Biodiversity Stewardship process in one of the provinces of South Africa, namely KwaZulu-Natal, on three different types of communal land tenure, namely land reform, Ingonyama Trust land, and state land, using three specific case studies (their location shown in Figure 2), specifically highlighting the flexible nature of the programme.

Somkhanda Game Reserve

Landscape corridors are among the most important conservation strategies in the face of global changes such as habitat fragmentation, habitat destruction, and climate change. Wildlands is working with a number of adjoining landowners, supporting the development of compatible conservation land use activities, with the vision of developing a broader conservation corridor in the landscape, allowing natural processes to maintain suitable habitats for key species to persist, whilst ensuring a sound economic model for the benefit of the actual landowners. Strategically placed

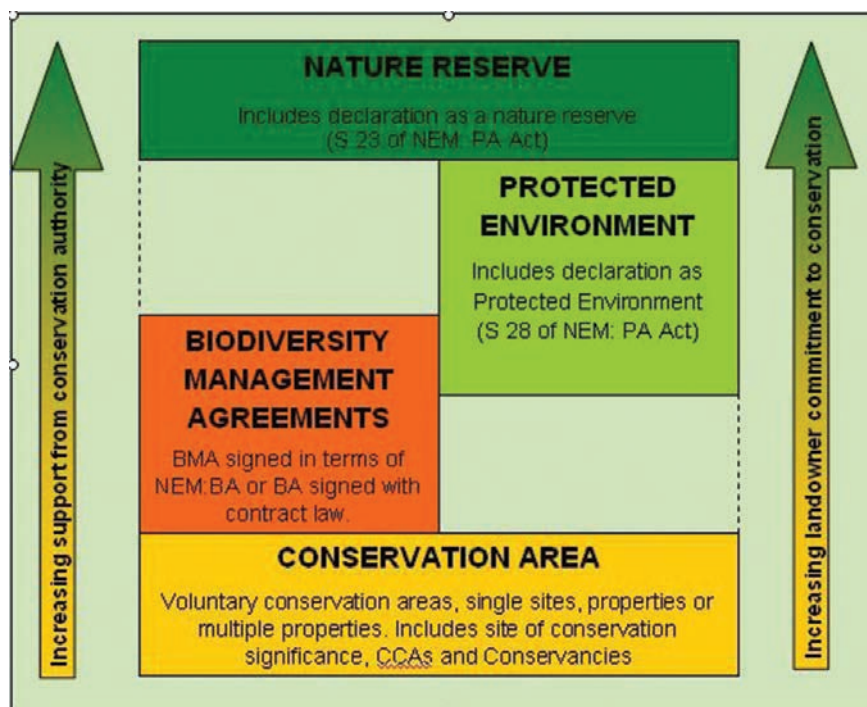
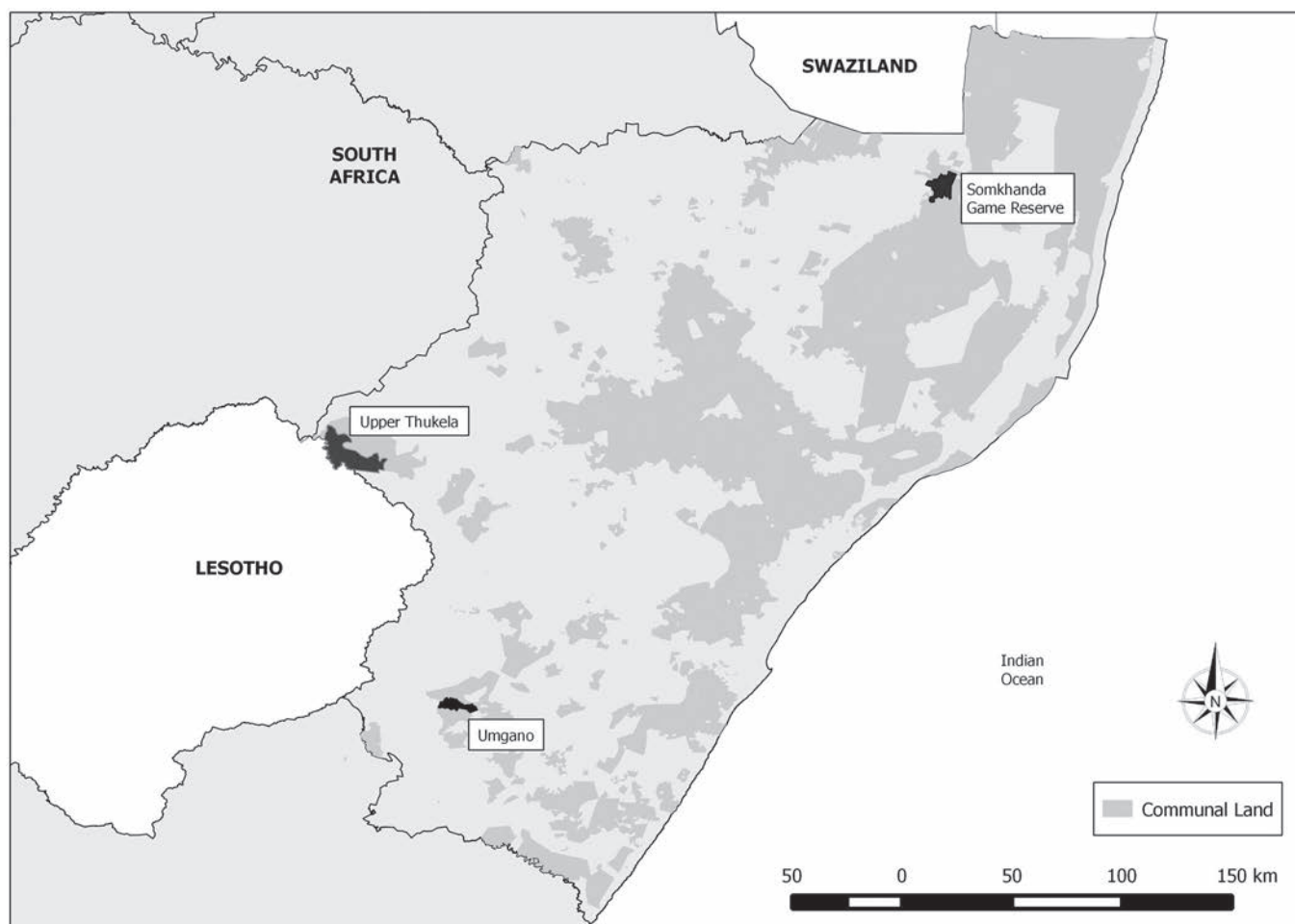


Figure 1—Hierarchy of biodiversity stewardship categories.

Table 1—Differences between the Biodiversity Stewardship categories, in relation to their relevant IUCN category.

Category	IUCN equivalent	Definition
Conservation Area	N/A	This category accommodates landowners/users who either do not want to commit to serious management changes, or who do not really have important biodiversity on their property, but who do manage their land with conservation objectives in mind
Biodiversity Agreement	Category VI	This category commits landowners/users to certain management practices on their land for a minimum of five years, while committing the conservation agency to ongoing support and monitoring for this period.
Protected Environment	Category V	Protected Environments are the most flexible but least secure type of protected area described in the NEMPAA (Act 57 of 2003). A Protected Environment is a legal mechanism for single or multiple landowners to control and direct landuse on the properties concerned, ideally secured for 30 years or longer.
Nature Reserve	Category III	The Nature Reserves category is reserved for landowners/users with high commitment and land of high biodiversity significance. It should aim for a contract and title deed restriction in perpetuity, or for 99 years, and a management plan with strong conservation objectives. The responsibility of the conservation agency to support and monitor these sites, should be significantly higher than with any of the other categories

**Figure 2**—Map of KwaZulu-Natal (South Africa) indicating the location of the 3 case study sites in relation to “communal land”.

with a conservation corridor in northern KwaZulu-Natal of South Africa is land owned by the Gumbi community. The Gumbi community are located in the northern parts of the province of KwaZulu-Natal, 50km south of the border with Swaziland. In the past the community was dispossessed of their land, which was then returned to them as a result of a series of successful land claims in 2005, through a process in South Africa referred to as the Land Restitution Programme. The entire claimed land was approximately 33,000ha, of which approximately 24,000ha has already been transferred to the community, allowing them legal rights and ownership to the land. Historically, the majority of this land was managed as commercial game and cattle ranches, with the challenge being the development of this land, in an appropriate manner to support these claimant families.

Of the 24,000ha, engagements with the Gumbi community through the Biodiversity Stewardship process has resulted in the community setting aside 11,600ha as a formally proclaimed core nature reserve, the highest and most restrictive category of Biodiversity Stewardship. This is supported by the community signing a formal legal agreement in February 2011, allowing this area to be secured in perpetuity. The balance of the land has been set aside for residential and livestock grazing for the 657 families representing the land claim.

The protected area itself has allowed an investment of more than R20 million (US\$2 million) into the establishment of Somkhanda Game Reserve as a vibrant Big 5 nature reserve. Through financial and direct investment, this support is aiding in training up reserve managers and field rangers, setting up tourism and game-related businesses, and employing more than 50 staff from the local community surrounding and owning the reserve. This will be assisted by the reintroduction of several threatened species such as African Wild Dog and Black Rhino. Further to this is the environmental education of the schools within the local community where children are exposed to their environment and learn the importance of wildlife and conservation. This will facilitate the smooth transformation from private land ownership to a communally owned and fully functional game reserve.

Despite the significant investment in Somkhanda Game Reserve by Wildlands over the past 7 years, there is a distinct realization that the protected area alone cannot provide the necessary economic support for the entire community, but does provide the basis for maintaining the ecological infrastructure of the community's land. In further support of the protected area (Somkhanda Game Reserve), Wildlands has activated its green-preneur programme into the Gumbi community surrounding the protected area. The investment into "greening" activities will reduce the burden and impacts on the boundary of the protected area, by generating and catalysing local economic development, and thereby improving the livelihoods of the people. The "Trees for Life" programme has been initiated within the past year, allowing 5 full-time community facilitators to develop a small network of 29 tree-preneurs, who grew and bartered 2512 trees worth R13730 (or approximately US\$1,300 equivalent). Although this indicates a small initial benefit to the community, these activities can only expand and further improve the livelihoods of the community.

The ultimate aim of this project is to develop a successful community land reform example, highlighting the fact that conservation land use can provide a viable alternative to other more destructive land uses which continue to degrade our ecological infrastructure and move us away from a sustainable future.

Upper Thukela Community Stewardship Site

The vision underwriting the Upper Thukela project is the integration of communal land (45,000 ha) into the uKhahlamba Drakensberg World Heritage Site, thereby formally protecting the upper catchment of the Tugela River. To achieve this, Wildlands has been working with several parastatal and NGO partners to support the two local communities, the AmaZizi and AmaNgwane communities, to establish a benchmark community Biodiversity Stewardship partnership that will effectively secure this area whilst underwriting the sustainable development of these communities.

Although in the early stages of the process, both communities are very supportive of the formal security of the upper reaches of the communal land. The biodiversity and water catchment values of the Drakensberg Mountains were recognised in the mid-1990s and formally proclaimed as a protected area and World Heritage site, known as the Maluti Drakensberg Park World Heritage Site. A portion of the Drakensberg Mountains between the Royal Natal National Park and the Cathedral Peak Section of the World Heritage Site was not included in the Water Catchment Area and/or the World Heritage Site, as it was and still is under communal land tenure, specifically under ownership of the Ingonyama Trust. The Ingonyama Trust was established in order to own land in trust on behalf of the Zulu King, King Goodwill Zwelithini. This posed a significant challenge to the Biodiversity Stewardship process in that it introduced a third party to the negotiations.

Wildlands has identified this as one of the most important CEBA projects in KwaZulu-Natal, specifically for its biodiversity value and its challenges in developing a sound business model around payment for ecosystem services and securing ecological infrastructure model. The basis of the development of this CEBA has been the negotiation of the highest category of Biodiversity Stewardship for the 45,000 ha upper reaches of the communal land, namely a formal nature reserve. A key element to this is the integration of the zonation and management of this area with the Maluti Drakensberg World Heritage Site, allowing the delineation of a "wilderness buffer boundary" by the Wilderness Action Groups, as it provided a defined geographical entity with which the Biodiversity Stewardship process could begin working.

In support of the management of the protected area, Wildlands has employed a restoration team of 35 local community members who are focusing on erosion rehabilitation, fire management, livestock management and alien plant clearing. This will provide significant benefit to the management of the protected area, and the inclusion of the area into the World Heritage Site. This inclusion will also assist

in unlocking the “payment for ecosystem services” potential of the area through the “avoided degradation” mechanism, particularly its water services and carbon storage potential. In addition, Wildlands will be activating its green-preneur model in the two communities, focusing on waste collection and more appropriate medicinal plant bartering in this grassland region.

Securing this community conservation area will achieve a dual aim of linking portions of the Maluti Drakensberg World Heritage Site (which has been identified as an international priority), and at the same time providing a business model for improving the lives of the local community through conservation and restoration management.

Umgano Project

The Umgano Project is an initiative of the Mabandla Traditional Authority, under the leadership of Chief Baleni. The project area is approximately 7,000 ha in extent, located in the province of KwaZulu-Natal, consisting entirely of State land, on lease to the community. Chief Baleni set this land aside primarily to establish and maintain a range of sustainable land-uses, to benefit the Mabandla community, making it possible for the Mabandla community to access donor and other funds, and to enter into a range of business opportunities.

The biodiversity resources of the area lie at the interface between two internationally recognised biodiversity hotspots, and are therefore of global importance. Fortunately, certain of its natural communities (including high altitude grasslands and associated wetlands, indigenous forests, Protea and cycad savannas) are of very high conservation value. The importance of these habitats is confirmed by the presence of relatively large numbers of endemic, rare and threatened bird species such as Striped Flufftail, Southern Ground Hornbill, Forest Buzzard and Cape Parrot.

Included in the overall purpose of the project are to achieve the following:

- Benefit the people of Mabandla through promotion of sustainable land uses and a flow of business and employment opportunities;
- Generate a sustained income flow for the Trust;
- Conservation of the natural environment, biodiversity, scenic beauty and cultural resources of the area, to sustain the provision of ecosystem services, such as water production, natural products and other benefits.

Due to the biodiversity value of the project area, a combination of Biodiversity Stewardship categories was contemplated and implemented for different regions of the area set aside. A grassland area of approximately 3,500 ha was secured for a 30 year period as a Biodiversity Agreement, comprising a lower level of formal security, allowing the grassland values to be secured through an economic activity not normally appropriate within a formal nature reserve, i.e. used for a sustainable commercial livestock management project. This innovative approach of combining historically conflicting economic development with conservation management is what makes Biodiversity Stewardship the most appropriate process. In addition, an area of 1,400 ha has been identified specifically as a nature reserve, focusing on natural grassland and indigenous forest management. This is supported by a

team of 6 field rangers and biodiversity monitors, and 13 community members being trained as conservation custodians.

Wildlands has identified the need to support these conservation activities with a network of green-preneurs, focusing on the propagation of appropriate indigenous forest trees, medicinal plants and threatened cycad species. This will assist not only as an economic driver in the community, but will support the maintenance and rehabilitation of the indigenous forests and grasslands, the ecological infrastructure base for the Mabandla community.

Lessons Learnt From the Process

In developing sustainable development options for communities on communal areas in South Africa, the key message is that we cannot only confine our conservation efforts to the core protected areas in the landscape, as we need to extend our work into the surrounding production landscape, those areas between protected areas utilized by people, focusing on supporting people to mainstream biodiversity conservation into their daily land use practices. This again fully supports Wildlands’ vision of developing new community conservation areas (protected areas to secure biodiversity), but then focusing on improving communities livelihoods in and around these protected areas through our green-preneur and sustainable livelihoods activities. The Biodiversity Stewardship mechanism has been recognised as a very useful and flexible approach to achieve this combination of economic development and biodiversity conservation, and works in a range of different land use and ownership tenure models.

In summary, a number of lessons can be taken from these case studies in highlighting the value of the Biodiversity Stewardship approach -

- It is a mechanism that is relevant and can be utilized on all forms of communal land.
- The establishment of a core protected area is critical to achieving protected area targets and secure basic ecological infrastructure required for community livelihoods and daily needs, which is achieved through the highest Biodiversity Stewardship category.
- It is imperative that these protected areas be supported by broader land use planning in the broader communal land surrounding the protected area, in order to reduce impacts by reducing the needs from the protected area.
- This allows a focus on investing into restoring ecosystems (ecological infrastructure) as the building blocks for a green economy, and thereby the development of financial and job creation mechanisms to protect this infrastructure.
- This can be achieved through the implementation of community-relevant and community-sensitive greening activities.
- This ensures that livelihoods are improved, and communities thereby support the continued maintenance and management of these protected areas.
- This landscape approach to communal land management will have positive benefits for the community, local biodiversity and broader climate change adaptation and resilience.

The main driver of protected area management success is “socio-economic” factors, which correlates with our thinking

of dealing with improving livelihoods as a means to secure a conservation footprint in communal areas. Due to the fact that biodiversity directly contributes to local livelihoods and economic development, we need to do better at proving that conserving biodiversity is not a sacrifice, but an opportunity that brings many benefits. The value of nature is irreplaceable and essential to human well-being.

References

- Cadman M., Petersen C., Driver M., Sekran N., Maze K. and Munzhedzi S. 2010. Biodiversity for Development: South Africa's landscape approach to conserving biodiversity and promoting ecosystem resilience. South African National Biodiversity Institute, Pretoria.
- Department of Environmental Affairs. 2009. Biodiversity Stewardship Guideline Document. DEA, Pretoria.
- Department of Environmental Affairs and Tourism. 2008. State of the Environment Report. DEAT, Pretoria.
- Department of Rural Development and Land Reform. 2009. Comprehensive Rural Development Programme, DRDLR, Pretoria.
- Driver A., Sink K.J., Nel J.L., Holness S., Van Niekerk L., Daniels F., Jonas Z., Majiedt P.A., Harris L. and Maze K. 2012. National Biodiversity Assessment 2011: An assessment of South Africa's biodiversity and ecosystems. Synthesis Report. South African National Biodiversity Institute and Department of Environmental Affairs, Pretoria.
- United Nations. 1992. Convention on Biological Diversity. <http://www.cbd.int/convention/>
- United Nations Environmental Programme. 2011. Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication, www.unep.org/greeneconomy.