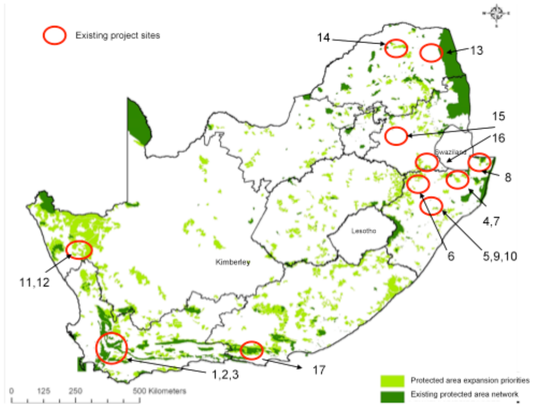

Map showing the location of the SANBI-DRDLR biodiversity stewardship and land reform sites

Biodiversity Briefing Series

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Biodiversity Briefing Series

Biodiversity conservation and farming

Many commercial and emerging farmers are conservation-minded and are working to use the land, water and chemical inputs in a more sustainable way. Some landowners have even set aside parts of their land with valuable biodiversity as nature reserves – they still own them but agree not to plough them up and to look after them by, for example, clearing alien plants and limiting grazing. This is referred to as "biodiversity stewardship" because landowners are consciously acting as stewards of the land – looking after it for their families' future and for the benefit of society.

Q How does biodiversity promote rural development?

A The DRDLR is working at several pilot sites together with the South African National Biodiversity Institute on a land reform-biodiversity stewardship initiative which aims to establish a network of learning between the land and conservation sectors across the country, and to demonstrate the successful delivery of both socio-economic and conservation benefits at a project level.

Q What is biodiversity stewardship?

A Stewardship involves landowners/users voluntarily agreeing to be stewards who look after the natural resources on their land. Formal agreements can be entered into between them and the provincial conservation agencies to (i) protect important biodiversity, (ii) create nature-based socio-economic benefits, (iii) enable more sustainable use of natural resources and (iii) effectively manage threats to nature.

Q How can stewardship help farmers?

A Practising sustainable farming in the ways described above can help emerging farmers achieve success with vegetable gardening and animals for their own food security, and with producing crops or livestock for the market. Harvesting natural resources like thatching reeds or fynbos flowers at a rate that is slow enough for them to grow back, i.e. sustainably, can also provide an ongoing source of income in some areas. Involvement in stewardship initiatives can provide funding for infrastructure, like water points and fencing, as well as access to advice on improving yields and grazing.

Q What are Payments for Ecosystem Services?

A In some cases, landowners/users involved in biodiversity stewardship can be compensated by government, donors or the people who benefit from their stewardship actions. Compensation can take the form of direct cash payment, provision of a teacher or social worker, or the salary for a part-time community officer to monitor conservation actions. The Leliefontein land reform stewardship agreement in the Northern Cape is an example of Payment for Ecosystem Services – see case study.

Q What is nature-based tourism?

A Another way that landowners/users can benefit from biodiversity is through nature-based tourism that relies on the area's natural beauty and unique biodiversity. This may range from a game lodge for international tourists to a local hiking trail. In some cases, communities may be shareholders in tourism enterprises, or in others they may obtain long-term employment and skills training. An example of land reform beneficiaries owning a successful tourism operation is the Gumbi tribe in northern KwaZulu- Natal, whose property Somkhanda includes housing, cattle grazing, a successful game lodge and a nature reserve.

Q What about EPWP opportunities for local communities?

A Landowners/users involved in biodiversity stewardship can sometimes receive short-term work opportunities and training through the Expanded Public Works Programme – clearing alien plants, restoring wetlands to their natural state, replanting indigenous vegetation or burning fire breaks. For example, in the Fynbos Vrugte en Wyn land reform stewardship project in the Western Cape, alien invasive clearing was done through using funds from LandCare and Siyabulela.

Q And Community Works Programme opportunities?

A In some rural areas, local people work for two days a week on projects agreed by the community as development priorities. These can include biodiversity-related projects, for example, in Alfred Nzo in the Eastern Cape, about 1 000 people are participating a pilot across 10 villages to provide home-based care, labour for vegetable gardens, fencing of fields, maintenance of school classrooms and also environmental rehabilitation and maintenance.

Biodiversity
as a Resource for Food Security

South Africa has a wealth of natural resources that are key to our development as a nation. Our natural resources include our minerals, our soil, our water and our biodiversity – for example, fish stocks, medicinal plants and game. Natural resources are a form of capital, like infrastructure, land, labour or finance – we can call them "natural capital".

As a nation, we need to invest in maintaining, restoring and building our natural capital, so that it can help support socio-economic development for all our people. Investing in looking after our biodiversity is a way of ensuring that it works for us, to fulfil our goals of:

Creating work and sustainable livelihoods

Achieving rural development, food security and land reform

Delivering water for the nation's needs

Providing protection against climate change

What is Biodiversity?

Biodiversity is the full variety of life on Earth – from the tiniest plant to the largest animal. Its complexity is measured in terms of variations in: the number of different species, the genetic wealth within each species and the interrelationships between species in ecosystems.

South Africa is one of the most biodiverse countries in the world: with a land area of 1,2 million km² - representing just 1.24% of the Earth's surface - South Africa contains almost 10% of the world's known bird, fish and plant species, and over 6% of mammal and reptile species.

Mark Wing

Making farming **sustainable**

Our nation's food security depends on a number of factors – we need to grow enough food to feed ourselves, without having to import basic foodstuffs. We also need to create a stable and prosperous rural population that is well serviced by government and that includes thriving agriculture and livestock businesses run by emerging farmers, and by beneficiaries of land reform and land restitution.

The Department of Rural Development and Land Reform (DRDLR) launched a Comprehensive Rural Development Programme in 2009 to fight against poverty, hunger, unemployment and lack of development in our rural areas, seeking to create sustainable rural communities throughout the country. Government's land reform programme seeks to address the historic inequalities in racial ownership of land and provide development opportunities for the previously disadvantaged through three programmes – land restitution, land redistribution and land tenure reform.

For long-term rural prosperity, we need to ensure that our farming operations are sustainable – socially, economically and environmentally. Managing farmland in an environmentally sustainable way involves looking after water resources, using chemical inputs like fertilisers and pesticides wisely, and preventing soil erosion. It also involves looking after areas of healthy natural vegetation, with all their biodiversity.

Farming in the Western Baviaanskloof

Ally Ritzwell

Achieving rural development, food security and land reform

This is because:

- Keeping a wide band of natural vegetation along both banks of a river prevents flooding and soil erosion
- Having areas of veld in between certain crops and fruit trees improves their yields by providing habitat for insects that pollinate their flowers
- Well maintained veld on communal and farmland can be used as the basis for new economic activities like game ranching and ecotourism
- Areas of veld on farms can provide farmworkers and dwellers with firewood, building materials, honey, meat and medicine.
- In some areas, natural vegetation stores enough carbon to raise international funding to pay for it to be maintained or restored.

In addition to keeping areas of veld intact, farmers may need to reduce their numbers of sheep and goats, rotating them in different parts of the veld and burning at the right time. Once the vegetation has had a chance to grow back, farmers find they have more and better quality grazing. It is also important to clear alien plants from the veld, as this increases the amount of water absorbed into the ground and flowing in rivers, making it available for crops and livestock. Public works projects on farmland through the Expanded Public Works Programme can supplement seasonal incomes – including projects in alien clearing, wetland rehabilitation, veld restoration and fire management.

Namaqualand farmers benefit from reducing stock number

Sixteen Leliefontein farmers who farm sheep and goats on communal land near Garies in the Kamiesberg, Northern Cape, are receiving a good price for the sale of extra stock in exchange for reducing stock numbers and farming more sustainably.

Hundreds of communal farmers in Namaqualand stand to lose their livelihoods as land becomes increasingly degraded by overgrazing and water resources are threatened by climate change. Conservation International's (CI) Biodiversity and Red Meat Initiative aims to address this situation and put stock farming back on a sustainable footing.

This involves CI staff training farmers in how to monitor veld conditions scientifically and adapt their management accordingly, on fire management and on new ways to control damage-causing animals, for example, using Anatolian Sheepdogs to protect stock against leopards. Through a partnership with Working for Wetlands, degraded wetlands in the area are being restored, which provides work opportunities and protects water supplies in the dry summer months.

In exchange, farmers have undertaken to participate in veld monitoring, to follow recommended land uses for sustainable farming, and to reduce their numbers of sheep and goats. Surplus stock will be bought up by a locally owned business, Nammeat, with CI subsidising the price of the stock.

This is an example of Payments for Ecosystem Services because the land users are being paid a premium by CI for selling an agreed number of livestock, which will benefit the veld and protect key wetlands and biodiversity through reducing grazing pressure.

Leliefontein farmers locate their stockposts on a map

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Factsheet Two