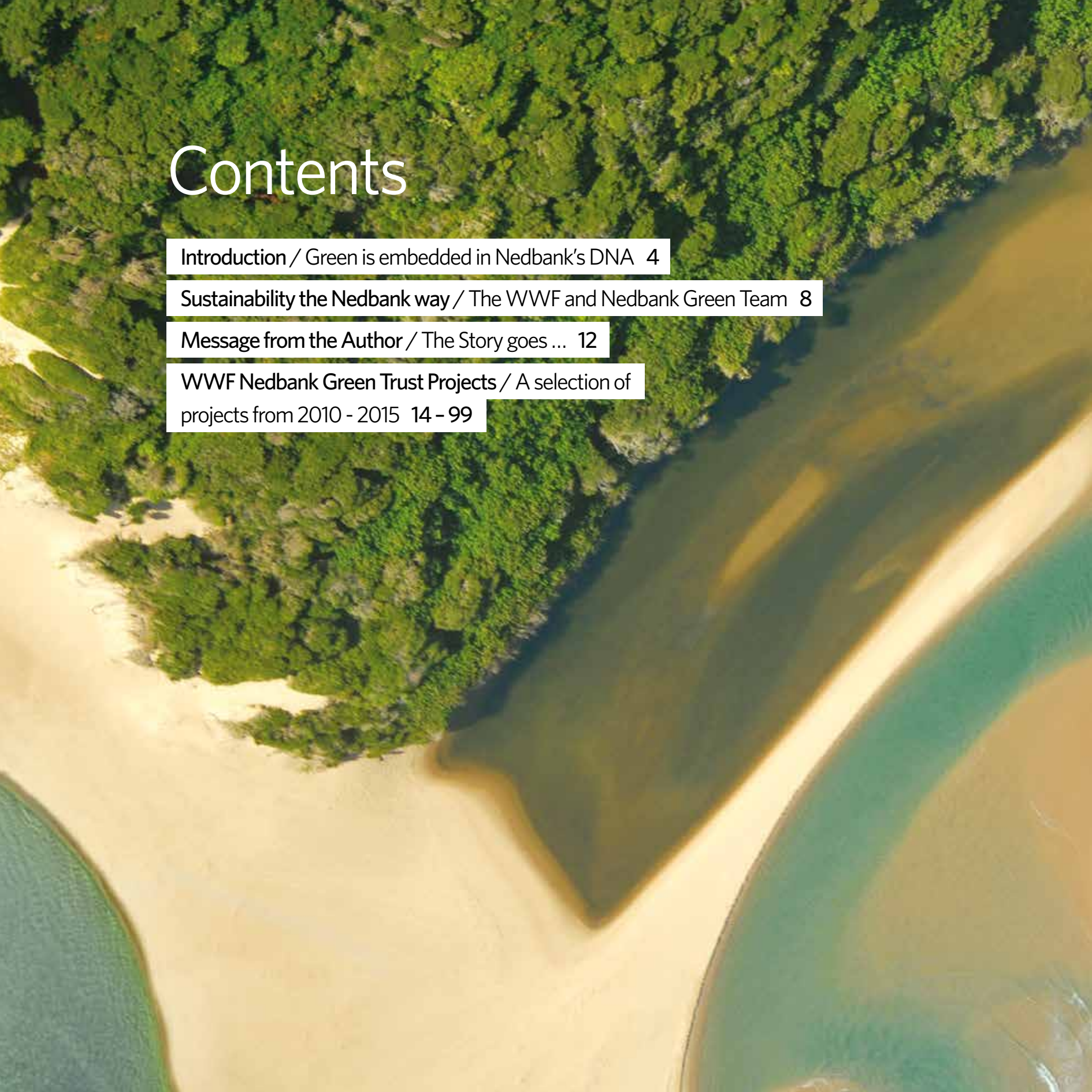
The WWF Nedbank
Green Trust

25 years of foresight


25 Years of foresight



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25 Years of the WWF Nedbank Green Trust

Green is embedded in **Nedbank's DNA**

In 2015 the WWF Nedbank Green Trust celebrates its 25th anniversary with all the people of South Africa. Back in 1990, Nedbank had recognised the signs of a looming natural-resource crisis, some 20 years before sustainability became the key global focus of our time.

The partnership's founding approach that business, government and communities should come together to accelerate conservation in South Africa was absolutely pioneering.

Mike Brown
Nedbank CEO

In 1990 Nedbank realised the necessity of putting corporate clout and capital behind conservation in South Africa, and partnered with WWF in South Africa to create the WWF Nedbank Green Trust.

'The partnership's founding approach that business, government and communities should come together to accelerate conservation in South Africa was absolutely pioneering,' says Nedbank CEO, Mike Brown.

With the support of its Green Affinity clients, Nedbank has donated more than R185 million to the WWF Nedbank Green Trust over the past 25 years.

Each time a Green Affinity client uses his or her credit card, cheque card, chequebook or any of his or her Green Affinity accounts, a percentage of the spend is contributed to the WWF Nedbank Green Trust at no cost to the client. This contribution has been used to fund more than 200 conservation projects.

From the early projects that included promoting solar cookers and conserving the Kalahari lions and sea turtles to the current projects on climate change, water conservation and environmental leadership, the WWF Nedbank Green Trust has pioneered the green way.

'Twenty-five years later, the focus on conservation, sustainability and all matters green is embedded in Nedbank's DNA,' adds Brown. 'It is everything that we stand for.'

The WWF Nedbank Green Trust's management committee meets several times a year to assess new-project applications. As part of the process, external project executants must cocreate applications with WWF to best address the WWF Nedbank Green Trust's conservation priorities in order to maximise impact. Each approved project is then funded and monitored throughout its duration, with project leaders submitting regular progress reports.

'Three years ago the management committee met to reappraise how the trust's funds should be directed to ensure that we remain relevant to current conservation and sustainability needs,' explains Augustine Morkel, the Executive Manager for Operations at WWF-SA who also manages the WWF Nedbank Green Trust.

'Towards achieving this, we asked ourselves how projects that are approved today would be assessed in 25 years' time. In the same way, we assessed the value of the projects over the past 25 years. We are proud to be able to say that overall they have delivered excellent value.'

Going forward, the major issues of our time include climate change, energy, food and freshwater security, marine resources and iconic species. In keeping with this, the WWF Nedbank Green Trust's theme is: Delivering new ways for people and nature to thrive.

'Based on this, we are selecting projects that can achieve impact at scale so that the amount invested delivers up to 10 times the value,' Morkel explains. 'An example is the "People and the Coast" project, where recreational fishers and divers are engaged as citizen scientists to record and report on South Africa's marine species. This data will significantly inform marine conservation policy and strategy, and the investment in this project over three years (2013 to 2016) will unlock the support of 800 000 fishers and divers across South Africa.'

'It's all about opening the doors of conservation to make it inclusive, relevant and beneficial for all South Africans,' says Rebecca Phiyega, Marketing Manager for Nedbank Affinities.

The WWF Nedbank Green Trust's climate change portfolio includes a project that is partnering with government on a climate change response flagship programme to lay the foundation for South Africa's practical transition to a lower-carbon, climate-resilient economy. This includes integrating green-economy development plans and programmes within government departments, such as Energy, Trade, Agriculture, Water and Health.

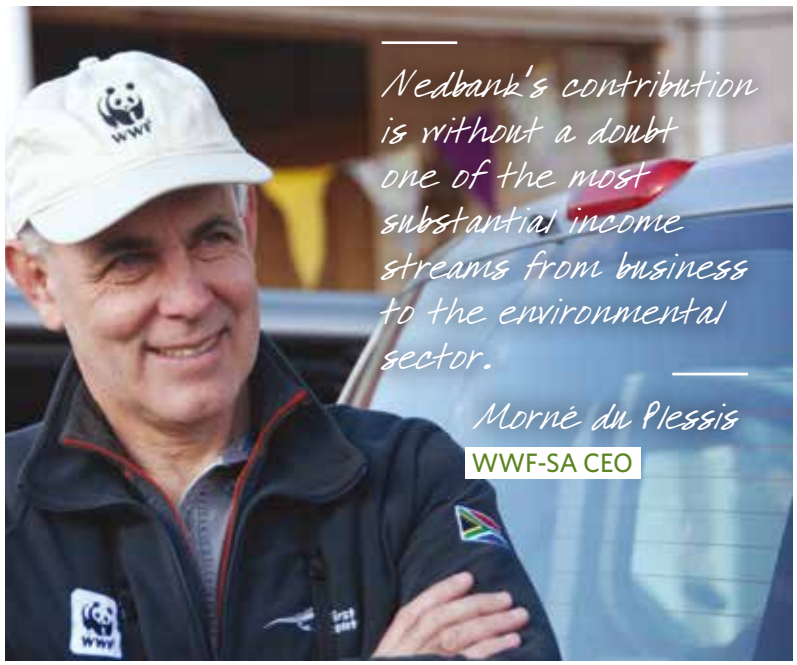
To develop future environmental leaders for South Africa, the WWF Nedbank Green Trust is funding 30 Master's students from universities throughout South Africa on an 18-month internship with the WWF Graduate Development Programme. This project is all about gearing up postgraduate students to contribute meaningfully to conservation and sustainability leadership in South Africa.

Water conservation is a key focus area for the WWF Nedbank Green Trust. Since 2002 the WWF Nedbank Green Trust has supported water and land conservation projects in the Enkangala Grasslands, which span 1,6 million hectares of privately owned and communal farms between KwaZulu-Natal, Mpumalanga and the Free State.

This is one of the most strategic freshwater priority areas for South Africa. It is part of the 8% of the surface area of South Africa that produces more than 50% of the country's surface water. Without it, South Africa's economy cannot survive. The range of projects that the WWF Nedbank Green Trust has funded is far-reaching, and WWF-SA's CEO, Morné du Plessis, succinctly summarises the importance of the WWF Nedbank Green Trust's work over the past 25 years:

'There is an increasing realisation that we have hit the limits of our ecological boundaries, or what nature can provide us. It is disappointing that many key role players have not responded earlier, but at the same time it has ushered in an exciting phase where new things can happen and where the WWF Nedbank Green Trust's work over the past 25 years is increasingly being acknowledged.'

'Nedbank's contribution is without a doubt one of the most substantial income streams from business to the environmental sector. Over the past five years alone, with increasing income from Nedbank we have been able to disburse R64,6 million into a range of key projects. This has an enormous impact on the environmental, economic and social wellbeing of all the people of South Africa.'



Biodiversity in the Enkangala grasslands.
Photo by Therese Brinkcate.

25 Years of the WWF Nedbank Green Trust

Sustainability **the Nedbank way**

The WWF and Nedbank Green Team

Through working with the Green Trust and the WWF if we at Nedbank can make sure that we leave behind a better planet than when we started out our journey in corporate South Africa. I think that it would be an amazing achievement.

Mike Brown
Nedbank CEO

Rebecca Phiyega

Marketing Manager for Nedbank Affinities

Coming into the green sector through Nedbank's Green Affinity has been a long, amazing journey for me over the past five years. The more insight I gain into the work of the WWF Nedbank Green Trust, the more I am humbled by what I am constantly learning. The foresight of these projects and the long-term commitment that the whole team shows is inspiring. Who would have thought, for example, that we would be able to sit in a restaurant and sms the name of a fish on the menu to a hotline, and immediately get a reply that tells us whether the fish is green-, orange- or red-listed, according to according to the risk profile of the species. Eleven years ago the WWF Nedbank Green Trust realised that consumer, wholesaler and retailer awareness was key to a sustainable fisheries sector and in 2004 it funded the Southern African Sustainable Seafood Initiative (SASSI) to achieve this. This is just one of the many catalytic WWF Nedbank Green Trust projects. Today I can say with great pride that green blood flows through everything that Nedbank does; it is the essence of how the whole corporate is run, and we haven't even touched the tip of the iceberg. The next five, ten, twenty-five years are going to be fascinating. Through necessity, all people, all communities, are going to be increasingly plugged into the sustainability and green space.

At Nedbank we will not rest until all of South Africa's 59 million people choose green consciously because we cannot build another Earth.

Mpho Sebelebele

Nedbank's Green Leadership Strategic Communications Manager

In 2011, when I started working in Green Leadership with Nedbank, it was a steep learning curve to understand the business view of sustainability. But as my interaction with the group sustainability team deepened, I gained greater clarity

and the key question of sustainability became obvious: Are we operating in a way that is responsible, healthy and sustainable for people, finances and the natural environment? In other words, the triple bottom line, but not as a theory, I wanted to see this in practice, which is what excited me when I started attending the WWF Nedbank Green Trust management committee field trips. I went to KwaZulu-Natal and experienced community-led wildlife and biodiversity conservation projects. I went to the Enkangala Grasslands and started understanding why grasslands are key to South Africa's water, food and economic security. I started seeing the whole picture, and it has inspired me to do so much more, particularly in the deep rural areas and townships where the struggle to put food on the table and to educate children all comes back to each one of us of behaving sustainably to positively advance the lives of all.

If I look back over the past five years, and consider what I now know I feel I have purpose, my career has meaning and the difference that Nedbank and the WWF Nedbank Green Trust is helping me to make in the world, is priceless.

Nomonde Mxhalisa

WWF Nedbank Green Trust Communications and Marketing Coordinator

It is my complete and utter belief that we cannot thrive as a people without ensuring the care and survival of earth's varied species and habitats. They sustain and enrich our lives in ways we are often not even aware of, and they personally allow me to revel in the magic and beauty of being alive in a world thrumming with diversity and biodiversity. I joined the WWF Nedbank Green Trust as the Communications and Marketing Coordinator in November 2014 and it has been a truly rewarding experience. Nature has always called to me. I was always the weird girl in the playground hugging trees and rescuing ants; making mud pies; eating the sugar cane that grew by the river near our house in Mamelodi; smearing my hands and face in the dewy purple goodness of my grandmother's mulberry tree.

Nature has woven purpose, laughter and joy through every aspect of my life and I've always wanted to give back. Working for the WWF Nedbank Green Trust is helping me to do that.

My hope is to see more and more South Africans coming back to nature. I want to see more sustainable use of land and water. I want to see our urban people and spaces prospering as green is invited back into our concrete territories. I want to see a world where we remember how essential our ecosystems are to our survival, and we nurture and protect them. Through my position with the WWF Nedbank Green Trust I want to help build a South Africa with no hunger; where all of our citizens have clean water, and where every single one of us lives with dignity. We can do this by turning our gaze back to nature and working with the gifts of the earth.

Thabani Jala

Chief Governance and Compliance Officer, Nedbank. WWF Nedbank Green Trust Management Committee member and Trustee

A partnership like the WWF Nedbank Green Trust is a necessity to the current and future success of people, the economy and the natural environment of South Africa and the world. It is *this* important.

We are all completely dependent on the natural environment, and we simply cannot live as if we are separate from it when it is integral to our survival.

So much damage has been done to our planet through what I call 'the extraction mindset'. Scientific evidence is demonstrating that we are at risk of major catastrophes such as global warming if we do not change this mindset and start giving back to our world – conserving our water, carefully managing our ecosystems, supporting sustainable agriculture for food security and reducing our carbon emissions. We all need to come together to achieve this ... corporates, urban and rural communities and individuals ... Over the next 25 years, I would like to see the Green Bank, together with our clients, who are our partners in this journey, doing even more to support the WWF Nedbank Green Trust because it is for the greater benefit of us all.

Greg Garden

Group Executive Marketing Capability, Nedbank and WWF Nedbank Green Trust Management Committee member since 2002

The magic of the WWF Nedbank Green Trust partnership lies in exactly that word: partnership. The power of the Green Trust ranges from positive impacts in rural communities where livelihoods are at stake and the future of people's relationship with the land has been managed, through to overall environmental policy and climate change strategy for our country.

It has been a privilege to experience the passion, credibility and expertise of the Green Trust's project leaders. They have championed the Green Trust's strategic thrust, built up through its wide range of projects over the past 25 years, with the aim of creating a better quality of life for all and a better future for future generations.

What more could anyone want than to put two words together that make all the difference to our lives: Green and Trust.

Brigitte Burnett

Head of Sustainability, Nedbank

Nedbank's sustainability journey began with the establishment of the WWF Nedbank Green Trust 25 years ago. Where the expertise of WWF has been very valuable to Nedbank is in our journey to address the many aspects of climate change and the role that a bank can play in tackling the challenges that climate change poses. The expertise has helped us to guide our position on climate change and it has helped us to understand the implications of our lending decisions and how these might play out from a climate change perspective.

I think where you really feel the value of the partnership and the work that Nedbank has done together with WWF is when you do the site visits, and you actually see on the ground the difference that it is making, the lives that it is changing and the jobs it is creating.

It's one thing to sit in the office and say our water proxy is this and we need to remove this amount of alien invasives but when you are on the ground and you see it happening, it is really moving and you realise that you can make a significant change.

Kerri Savin

Stakeholder Engagement Manager, Nedbank

I've had the privilege of working with the WWF Nedbank Green Trust in an intensive capacity for the past five years. Before I started this work, I regarded WWF as an organisation that would fight for the environment at all cost. But when I started going on field trips into rural South Africa, I realised it is as much about fighting for communities who are completely reliant on the environment.

It is really moving to experience this on the ground; to witness Nedbank's approach to sustainability, which is all about integrating social, economic and environmental consideration coming to life in projects like the Enkangala Grasslands.

You hear firsthand from farmers what it means to them to have alien invasive trees removed from their land. They show you rivers that had stopped flowing during the dry season that are now flowing all year round again. The WWF Nedbank Green Trust brings together job creation, food security and economic growth. It tangibly demonstrates everything that we stand for as the Green Bank.

Cynthia Smith

PA to the Executive Manager for Operations at WWF-SA

Twenty-one years have flown, and I stand here knowing that the more you know about conservation, the more you want to learn. It has been so rewarding to witness the results of the projects over the years, and to see how the WWF Nedbank Green Trust has evolved.

One of its many pioneering achievements is the development of community-based conservation in South Africa. It is complex and difficult, and I take my hat off to all the teammembers who have worked so tirelessly, often in the most remote and basic of circumstances. Their passion and commitment never ceases to amaze me.

Cynthia Smith is the longest standing staffmember of the WWF Nedbank Green Trust. She has served the partnership with commitment and dedication since 1994.

Ian Gumbi

A vast thank you to Ian Goodwin, WWF-SA's Chief Financial Officer. A member of the WWF Nedbank Green Trust's management committee since 2007, he has overseen the financials with consummate professionalism. Fondly known as 'Ian Gumbi', his sharp wit and off-road driving skills are renowned throughout the land.

WWF Nedbank Field Trip to the Enkangala Grasslands in 2014.

The Story goes ...

The story goes that if you wrote up the sustainability blueprint for conserving our planet and creating a decent quality of life for all, and you then made it freely available for everyone to duplicate, most people would not be able to make use of it.

Why? Because sustainability blueprints cannot simply be copied. They require time, experience and considerable effort and commitment to implement. They include many complex layers and nuances, which only those who are prepared to live the journey start to understand, and incrementally gain the skills and legacy to be able to implement.

This is the legacy of the 25-year blueprint of the WWF Nedbank Green Trust. Founded in 1990 at a time when few people, businesses or governments were talking Green, the WWF Nedbank Green Trust saw the future. It recognised that the survival of our planet depends on the coming together of governments, businesses, organisations and people.

For 25 years the WWF Nedbank Green Trust has pursued this difficult, time-consuming journey and contributed knowledge, skills and finances to over 200 outstanding projects that are all 'firsts', and that demonstrate the WWF Nedbank Green Trust's insight and foresight over 25 years.

The projects collectively create a blueprint for sustainability in South Africa and beyond. This blueprint is generously and freely offered to all who wish to implement it and experience its astonishing rewards. The one barrier is that it cannot be copied; the gains and rewards can be reaped and experienced only by living it.

I am honoured to say that I have been able to understand a bit about what living the blueprint means through the WWF Nedbank Green Trust projects that I have visited and written about over the past 15 years.

I have witnessed the incomparable work that so many committed, dedicated South Africans have contributed to these projects. I have seen them working hand in hand with people in the deepest rural communities, not for a day or a week but for years, in order to gain an understanding at the deepest level of what life for rural people is like.

I have seen people working in government, in policy development, on high-level climate change research; I have seen people engaging the fisheries sector at all levels – from multinational seafood companies to small-scale fishers in their traditional wooden boats.

I have seen rivers starting to run again in areas where they stopped running decades back. Achieving this is part of the WWF Nedbank Green Trust's freshwater focus, which includes invasive alien tree clearing programmes on a vast scale in partnership with public works programmes such as Working for Water.

I have seen farmers, villagers and business owners starting to work together along river catchments with a new awareness that 'my water quality is my neighbour's water quality' in the cycle of ecosystems.

I have seen project teammembers conserving rhinos, frogs, fish, wild dogs, leopards, wild flowers, grasslands and birds. I have seen so much to be hopeful about in our country through the work of the WWF Nedbank Green Trust.

Looking ahead to the future, to the next 25 years, the story continues and we dedicate this publication to 'the future', to the young people of South Africa. Who better to be the torchbearers of the future than our group of conservation Master's students and graduates who are currently interns with the WWF Nedbank Green Trust's Graduate Development Programme. They will help to lead conservation and sustainability in South Africa in the future, and we proudly showcase them together with a selection of WWF Nedbank Green Trust's projects over the past five years.

To all the incredible young people of South Africa, this is your world. You have time on your hands to live the blueprint, and we cannot wait to see what you do to make this country and this planet a more beautiful, more comfortable, more compassionate place for all.

Heather Dugmore

Author, journalist, specialist writer

Future **Environmental Leaders**

30 WWF Nedbank Green Trust Master's interns

Master's degree interns from the Graduate Development Programme for future environmetnal leaders. In the middle of the front row is WWF-South Africa's Senior Manager: Environmental Leaders Programme, Dr Glenda Raven who conceived, established and leads the Graduate Development Programme.

'We are committed to the development of future leaders in the conservation and sustainability sector,' says Rebecca Phiyega, Marketing Manager for Nedbank Affinities.

'The Graduate Development internships we are funding are all about gearing up Master's students to find fulltime employment in this sector where they can meaningfully contribute to conservation and sustainability leadership in South Africa.'

Thirty Master's graduates from universities throughout South Africa have been funded by the WWF Nedbank Green Trust to complete an 18-month internship on the Graduate Development Programme. The first intake of 10 Master's graduates completed their internship on the 2013/14 programme; the second intake is currently on the 2015/16 programme.

'This programme is really necessary because Master's graduates are well qualified academically when they complete their postgraduate studies, but they lack the experience that employers are seeking,' explains Dale Wright, a graduate of the programme. He has an MSc in Conservation Biology from the University of Cape Town and is now the Regional Conservation Manager for BirdLife South Africa in the Western Cape.

'Through the programme you gain the practical experience required to get a foothold in the sector. At the same time the sector also benefits as it is able to develop much needed capacity.'

As an intern, Wright worked with the Biodiversity and Wine Initiative (BWI) – a pioneering partnership between the South African wine industry and the conservation sector.

'I learnt a great deal about what sustainable agriculture and biodiversity stewardship is all about, and I had an excellent mentor in BWI's Senior Extension Officer Joan Isham,' adds Wright.

'What was also invaluable during my internship was the exposure I gained to the conservation network. When I applied for the position at BirdLife South Africa in the Western Cape it appealed to them that I was already entrenched in the provincial network.'

Interns are placed with dedicated mentors in areas of work related to their academic backgrounds and career interests. Their career development journey during the internship is supported by a series of induction workshops in which they explore the environmental sector, the various role players and prospective career paths.

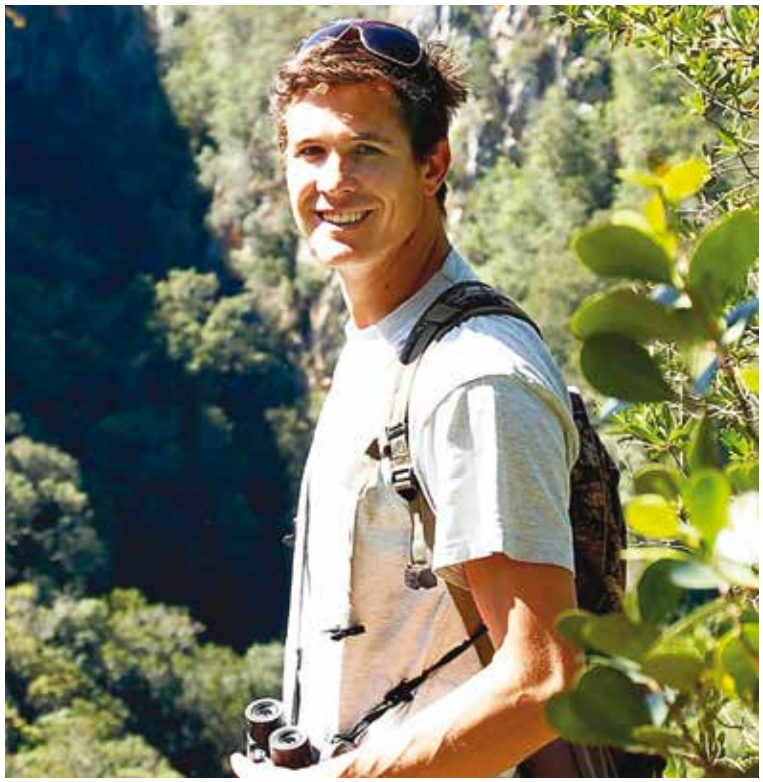
'We specifically select Master's graduates for this programme because the recruitment into the workplace in this sector, generally happens at a Master's level,' explains WWF-South Africa's Senior Manager: Environmental Leaders Programme, Dr Glenda Raven who conceived, established and leads the Graduate Development Programme.

'The internship bridges the gap between the academic and work environments, provides an induction into the conservation and sustainability sector, develops technical skills related to the intern's academic background, career interest and vision, and develops key workplace-based skills.'

Adverts calling for applications for the programme are placed at all South African universities. Master's students respond from a wide range of disciplines, including Environmental Science, Agriculture, Conservation Biology, Water Science, Marine Science, Sustainable Development, Law, Commerce and Economics.

The interns are placed in a range of conservation organisations, including WWF-SA, SANParks, the Nature's Valley Trust, WWF, BirdLife South Africa and the Wildlife and Environment Society of South Africa (WESSA).

'The calibre of interns is just amazing; they are extremely strong graduates who recognise the value of the environmental career path,' says Dr Raven. They will go on to take their place amongst South Africa's conservation leaders.



What was also invaluable during my internship was the exposure I gained to the conservation network. When I applied for the position at BirdLife South Africa in the Western Cape it appealed to them that I was already entrenched in the provincial network.

Dale Wright

Graduate of the programme and is now the Regional Conservation Manager for BirdLife South Africa in the Western Cape

To celebrate these future leaders, the profiles of a number of 2015/16 Master's interns on the WWF Nedbank Green Trust Graduate Development Programme have been included in this book.

Alexandra Logan

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: The Green House

I grew up in Durban and completed my undergraduate and Honours degree at the University of Stellenbosch (BSc Earth Science with Environmental Geochemistry), followed by my Master's degree in Sustainable Development and Climate Change at the University of Cape Town.

I applied to the WWF Nedbank Green Trust Graduate Development Programme because it provides an excellent base for young professionals to start building a career.

My internship is with The Green House – a Cape Town-based sustainability and climate change strategy, technology, capacity and futures planning company. I am gaining great exposure to the industry and how the business of sustainability operates.

It has also given me a lot of confidence in myself and in my chosen vocation, which is focused on climate change mitigation by developing climate-resilient, low-carbon economies and lifestyles. It's an exciting, increasingly relevant field and as a motivated, conscientious woman, I am confident that I will be successful in my chosen career path.

Brittany Arendse

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: Nature's Valley Trust (NVT)

I am from a rural dorpie north of Cape Town, called Malmesbury. A move to Cape Town followed my matric year, and I completed my undergraduate degree at the University of Cape Town in Marine Biology and Ecology, followed by my Honours degree in Botany (Marine and Terrestrial) and my Master's in Pollination Biology, focusing on the genus Erica (commonly known as heaths).

My internship with the Nature's Valley Trust in Nature's Valley includes participating in fish population surveys in the lagoon and estuary, and in Fynbos research programmes. I am also involved in environmental education with the communities here, which I find incredibly rewarding.

This programme is offering me an amazing experience and it is the perfect next step for a young graduate. At this point, I am still not entirely sure what the future holds for me, but I am using this opportunity to fine-tune my skills, discover new abilities and find my true place in the conservation sector.

Lutendo Mutshaine Desmond

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: BirdLife South Africa

I am a graduate of the University of Venda with an Honours degree in BSc Mining and Environmental Geology. I am currently doing my MSc in Environmental Management.

I worked as a geologist and environmental analyst in the coal industry for five years. During this time I increasingly started focusing on the natural environment, as I felt it was more important to use my skills and qualifications in the environmental conservation sector.

I am now doing my internship with Birdlife South Africa, based in Johannesburg, in the position of Mining and Biodiversity Officer.

I have learnt to use GIS, to review mining applications, Environmental Management Plans and Environmental Impact Assessments, and to lodge objections to applications in inappropriate areas, such as high water-production areas, Important Bird and Biodiversity Areas or Protected Environments. Our organisation also engages the Department of Mineral Resources, the Department of Environmental Affairs and other government departments to try to work together on these issues.

Kathryn Stausebach

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: Nedbank

I have a Bachelor of Science degree in Zoology and Ecology, an Honours degree in Ecology, Environment and Conservation and a Master's degree in Environmental Science, all from Wits University.

I believe the greatest power to reduce humanity's negative environmental impacts lies in sustainable commercial activity. Consequently, I have narrowed my study focus down to how businesses can improve their practices within the environmental sphere.

Through my internship at Nedbank I am gaining invaluable insight on how sustainability initiatives are implemented in 'the real world'. My key focus has been on completing social and environmental assessments for the Corporate Banking Division. I have learnt a tremendous amount about how a financial institution can direct funding to support social and environmental sustainability. And, if a company is underperforming in this space, then Nedbank works with the client to improve these standards.

Mmatjie Mashao

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: BirdLife South Africa

I was born in a little village called Terbrugge in the Moletjie district in Limpopo. I did my undergraduate degree, Honours and Master's in Zoology at the University of Limpopo. I studied the biology and ecology of the Sabota Lark, specifically its diet, breeding behaviour, breeding success, sexual dimorphism and the morphological characteristics of the species in Limpopo and across southern Africa.

Birds and environmental conservation fascinate me, and I am currently an intern with BirdLife South Africa, focusing on seabird conservation in Cape Town. My tasks include working with South African demersal trawl fisheries to help reduce seabird deaths.

Seabirds follow fishing vessels to feed on the fish and catch discards, and some of them accidentally get entangled, and dragged under the water. To mitigate this they use Bird Scaring Lines (BSL). Our role is to monitor the use of the BSLs, raise awareness about seabird conservation and teach the fishing crews how to identify seabirds.

On this internship I have learned so much about the marine environment, seabirds, seabird identification, and how to approach and work with people. I have also gained a lot of confidence in my skills as an environmental conservationist, which is the field I intend to work in, and to play my part in raising awareness about our planet.

Nathan Philander

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: Centre for Environmental Rights (CER)

I am from Atlantis, a medium-sized industrial town about 40 km north of Cape Town. I have an LLB degree from the University of the Western Cape where I am currently pursuing my Master's degree in Environmental Law.

Growing up in Atlantis, where pollution is rife, I observed that, mainly because of the lack of legal knowledge and institutions to assist them, the community has never properly tackled environmental problems and solutions.

I am currently working in the Pollution and Climate Change Department of the Centre for Environmental Rights. I have learned so much in these past few months, with regard to the current air quality legislation in South Africa, the difficulty in enforcing it, and how communities are negatively affected by poor air quality.

I want to absorb and learn as much as I can from the great legal minds I am surrounded by. I wish to continue to work in the environmental law sector, so that I may be instrumental in ensuring the progressive realisation of environmental rights in South Africa.

My long-term goal is to start my own civil society organisation that will advance the environmental rights cause.

Nelisiwe Vundla

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: WWF-SA African Rhino Programme

I obtained my undergraduate and Honours degree in Geography and Environmental Management at the University of KwaZulu-Natal and I am currently pursuing my Master's in the same field.

Through the WWF-SA African Rhino Programme, I am gaining outstanding knowledge in rhino conservation and the science employed in protecting the species. We also engage with the communities surrounding protected areas and share conservation knowledge through the Community-based Natural Resource Management (CBNRM) programme. This motivates communities to become environmental stewards and to benefit from wildlife through sound environmental management.

Working with all the teammembers in this programme, understanding what they do and how they fit into the programme, is very motivating and inspiring as it requires a wide range of experts to execute the work.

Monica Betts

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: WWF-SA's Sustainable Fisheries Programme

I grew up in Vanderbijlpark and graduated with a BSc in Ecology and an Honours degree in Zoology from the University of Pretoria. I am in the final stages of my MSc in Zoology, researching a new technique for monitoring two species of dolphins in the oceans around Mossel Bay.

I heard a saying once that you can make money to bail out a bank, but you cannot make life to bail out a planet. This statement really hit home. It fueled a passion for conservation that has increased throughout the years.

There is so much negativity surrounding the status of the world's oceans and it is easy to get caught up in this, but working as an intern on this programme I soon realised that there is also much to feel positive about. There is so much more going on behind the scenes than people realise and I am amazed to see all the initiatives that are underway, not only to move fisheries towards sustainable fishing practices but also to educate our citizens about what they can do to help save our oceans.

I believe that it is possible to save our planet, and it is my responsibility as a scientist to help people discover and understand what caring for the natural environment is all about. If I can be successful in encouraging people, businesses and governments to work together to conserve nature it would be my dream come true.

Sinethemba Cele

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: WWF-SA Grasslands Programme

I completed my undergraduate and Honours degrees in Geography and Environmental Management at the University of KwaZulu-Natal (UKZN). I am currently in the final stages of my Master's degree in Environmental Management, also through the UKZN.

As a social scientist, I am passionate about human interaction with the natural environment and I feel a purpose-driven need to protect and conserve the biodiversity of nature, which I see as God's carefully created work of art.

I'm an intern in the Grasslands Programme, which has been such an eye-opener. The grasslands are an incredible, water-rich ecosystem. Protecting their biodiversity is essential for food and water security in South Africa. We look at every aspect of the grasslands ecosystem: soils, freshwater systems, plant and animal species, climate, landscape and so much more.

I aim to continue working in biodiversity conservation. I would like to educate and work with people to encourage them to live sustainably and to help them understand why it is important not to compromise the integrity of the environment.

Sibusiso Khuzwayo

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: WWF-SA's Environmental Leaders Programme

My passion for the environment was developed in my high school geography class. This led to me enrolling at the University of KwaZulu-Natal, Pietermaritzburg campus (UKZN-PMB) where I did my BSocSci in Geography and Environmental Management and my BSocSci Honours and Master's in Policy and Development Studies.

The human capital development strategy that is part of the Environmental Leaders Programme, offers an amazing opportunity for someone with my kind of Master's degree as it exposes me to research, career guidance and work integrated learning (WIL). I am doing monitoring and evaluation (M&E) for the Careers and WIL Programme.

It includes inspiring university students to pursue scarce-skill careers in biodiversity and helping graduates to address key challenges in the transition from the learning environment to the work place.

By the end of this internship I want to have developed and strengthened my skills in research and skills planning and development, data collection and analysis, as well as to have networked with partners in skills development for biodiversity.

Thobeka Gumede

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

Internship: Centre for Environmental Rights (CER)

I was born in the village of Eshowe in KwaZulu-Natal, raised in a township called KwaMakhutha in Durban and I completed my LLB at the University of Zululand.

In my third year I met someone who was doing his PhD in Environmental Law, and he inspired me to take Environmental Law. I became totally absorbed by it and when I was accepted to do my LLM in Maritime Law at the University of KwaZulu-Natal (UKZN) I chose to do my thesis on how salvors are compensated for preventing or minimising environmental harm.

Working for the Centre for Environmental Rights has made me realise just how little is known about the environment and how this results in poor people being exploited. I want to contribute to the conservation of the environment by educating people about their environmental rights. I also aim to expose more university students to the field of Environmental Law. So few people choose this field because of the lack of knowledge about it.

Wesley Bell

Master's intern on the WWF Nedbank Green Trust Graduate Development Programme for 2015/2016

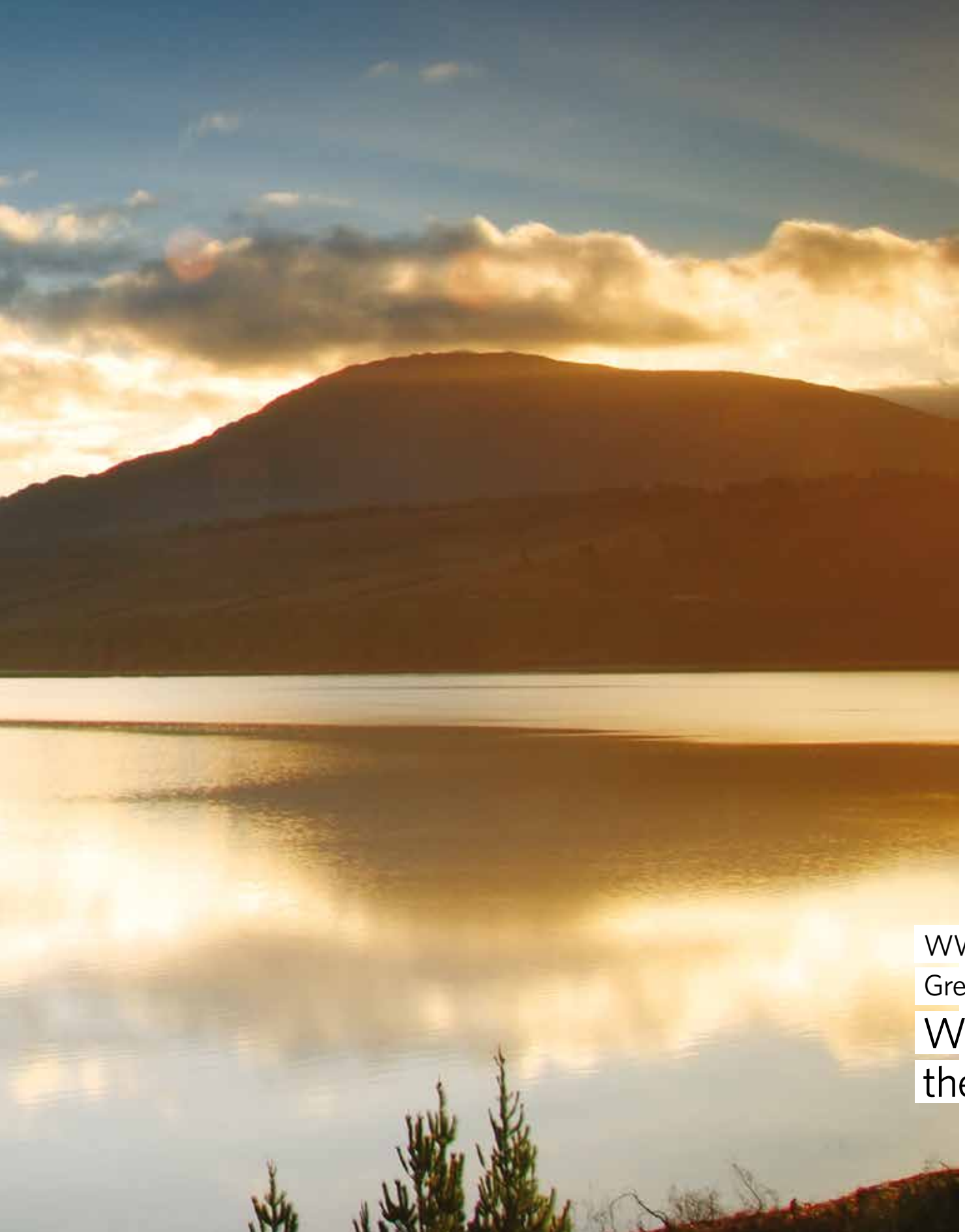
Internship: WWF-SA's Land Programme

I grew up in Gaborone, Botswana, in a small suburb that bordered a piece of open veld, which in turn bordered the Gaborone Game Reserve.

I completed my BSc in Ecology and Environmental and Geographical Science, my Honours in Botany and my MSc in Conservation Biology at the University of Cape Town.

My internship is in protected area expansion through WWF-SA's Land Programme. It's a really exciting space because the programme makes a positive contribution to the conservation of South Africa's unique and globally important biodiversity. This is done by engaging in stewardship work on privately owned- and community owned land, as well as through land purchases that contribute to the expansion of protected areas.

At the outset of my career in conservation, I'm already thinking ahead to my seventies when I hope we are living in a world where people use less, cause less damage and manage our natural resources sustainably. I want to be able to look back and say that I played a significant part in this.



WWF Nedbank
Green Trust Projects

Water for the Future

25 Years of the WWF Nedbank Green Trust

Water for me, water for you, **water for South Africa**

In the rural areas, the manner in which your upstream neighbours manage their water, directly affects the quality and quantity of the water you receive. Which is why the more than two million water users along the 230 km Pongola River (from source to sea) are being encouraged to come together to co-manage this strategic South African water source in a key WWF Nedbank Green Trust project titled Water Security for Pongola.

Key water production area for South Africa in the highlands of Enkangala.

Above: Pongola headwaters.
Below: Enkangala grasslands.

'The Pongola River and its headwater is part of the critical 8% of South African landscapes that provide more than 50% of our country's fresh water,' explains Christine Colvin, Senior Manager of WWF's Freshwater Programme, who is supervising the project.

The Pongola River and its catchment supply a wide range of water users, including forestry, farmers (predominantly livestock, sugar cane and fruit), agri-industry, towns and rural communities. All are connected through this major South African water source that starts in the headwaters of the Enkangala grasslands near Utrecht and Wakkerstroom, and ends in the Indian Ocean in Mozambique.

Freshwater conservation has been a priority for the WWF Nedbank Green Trust since its inception. One of several key water projects that it has funded since 2002 is the Enkangala Grasslands Project – encompassing a high water production area for South Africa of 1,6 million hectares of grasslands between KwaZulu-Natal, Mpumalanga and the Free State.

Here, you will find the headwaters of the Vaal, Tugela, Usuthu and Pongola Rivers, which provide clean, potable water for Gauteng, Mpumalanga and KwaZulu-Natal. Without this water South Africa's economy cannot survive.

Angus Burns

WWF-SA Senior Manager for the Land and Biodiversity Stewardship Programme

Sam Mnguni

Enkangala Grasslands Programme coordinator

WWF-SA's Senior Manager for the Land and Biodiversity Stewardship Programme, Angus Burns, has coordinated this project from the outset. Burns and his team, including Ayanda Nzimande and Sam Mnguni, have been working intensively with government, farmers, landowners, land restitution communities and conservation organisations to conserve the grasslands, secure water production, and encourage sustainable livestock farming practices.

Apart from its priceless water value, Enkangala is a key biodiversity area, rich in rare plant and animal species. The Pongola headwaters, for example, are the last remaining breeding grounds of the endangered Yellow Fish and home to the critically endangered Southern Barred Minnow.

Downstream from the headwaters are many more farmers, including fruit and sugar cane farmers, sugar mills, agri-industry (such as Illovo Sugar) and many rural communities. A high percentage of financially impoverished people live in the Pongola catchment without water services or sanitation services. Many people still have to fetch their daily water from the river and use the bush or river as a toilet.

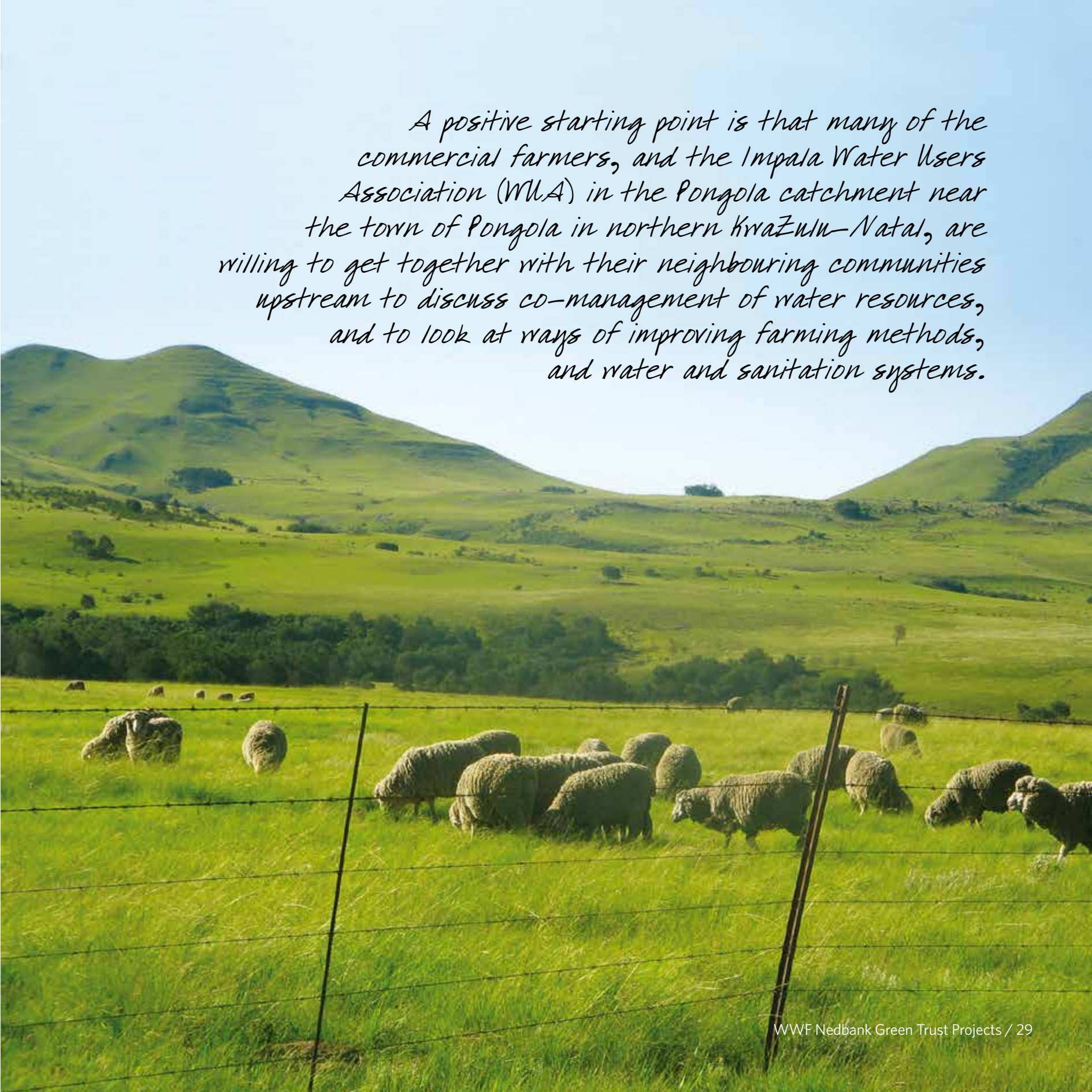
This puts them at risk to a range of water-borne diseases, including cholera and dysentery, and creates a situation where the river water can test for unacceptably high levels of fecal matter and E. coli bacteria.

Large sections of the Pongola catchment are also infested with alien vegetation, which absorbs vast quantities of water. Other sections of the catchment are overgrazed, which leads to topsoil being washed into the river, causing rapid silting of the dams downstream.

'To boost water quality and water security along the Pongola catchment we are engaging with landowners, local government, communities and agri-industry,' says Colvin.

'At the same time we need to address better sanitation methods and look at introducing basic water filters and appropriate water treatment methods at the village or household scale. The upstream water management practices directly impact on the water quantity and quality the downstream users receive, and hence on their wellbeing and livelihoods,' Colvin explains.

Well managed livestock farming is highly compatible with grassland conservation.



A positive starting point is that many of the commercial farmers, and the Impala Water Users Association (WUA) in the Pongola catchment near the town of Pongola in northern KwaZulu-Natal, are willing to get together with their neighbouring communities upstream to discuss co-management of water resources, and to look at ways of improving farming methods, and water and sanitation systems.

25 Years of the WWF Nedbank Green Trust

No-go areas for the future

In the grasslands of Mpumalanga and KwaZulu-Natal the rush for coal mining applications is threatening South Africa's key water and food production areas.

An abandoned coal mine in the Enkangala Grasslands region which runs into the nearby river.

Over 400 hectares of the 1 400-hectare farm of livestock farmer Ralph Bohmer have become unusable because the grass and water is toxic from a defunct coal mine.

'There is a deeply concerning incompatibility between what is happening with mining and water security in South Africa. Linked to water security for the country is economic and food security,' says WWF-SA's Senior Manager for the Land and Biodiversity Stewardship Programme, Angus Burns.

'In Mpumalanga, for example, the situation is out of control with more than 60% of the province under some sort of mining or prospecting application. Many of these applications are in places that should be definitive no-go areas because of their water production, food production and biodiversity value, and because coalmining is known to pollute water.

'I need to be clear that we are not pitting conservation against mining,' continues Burns. 'We recognise that responsible mining is a key contributor to economic growth and employment. But mining at the source of key water production areas does not make any sense: not economically, socially or environmentally. It needs to be avoided and strategically addressed.'

To address this proactively, the WWF Nedbank Green Trust funded the Mining Engagement Project in the Enkangala grasslands from 2012 to 2014, led by Burns.

'Coal mining is all too often seen as an easy way to make money, with a large number of fly-by-night mining companies applying for prospecting rights anywhere they can. This inludes high water production areas, even where the coal reserves are marginal,' says Burns.

'Enkangala has been burdened with several of these applications. Mining companies come here and promise the local communities plenty of employment for 20 years, which doesn't materialise. Many of the companies close or are liquidated after a few years, leaving the local communities with polluted water.'

One of the Mining Engagement Project's objectives included engaging with mining houses and government to dissuade mining activities in what should be no-go mining zones. To assist communities facing mining threats in priority and protected environments in South Africa, the Mining Engagement Project developed standard, repeatable protocols that can be used by all.

Burns and his team also undertook and completed a WWF Nedbank Green Trust-funded report on the standards of environmental assessment practitioners (EAPs) in the mining sector titled Mining and Biodiversity: Evaluating EAP standards in the sector. This was released in September 2014.

Burns says that EAPs play a critical role: 'They are meant to filter mining applications with acceptable impacts from those that would have unacceptable environmental impacts, and then to present their findings to the relevant authorities in an objective manner – thus promoting sustainable development in South Africa'.

'The report revealed over 30% non-adherence to the key biodiversity principles contained in the government endorsed Mining and Biodiversity Guidelines (MBG) released in May 2013.

As a key recommendation, WWF-SA calls on government to fast-track the appointment of the Environment Assessment Practitioners Association of South Africa (EAPASA) as a registration authority for EAPs to ensure compliance and higher standards in the industry.

Angus Burns looks at water pollution in a river in the Enkangala grasslands region 50 years after coal was mined here.

The river runs through it

The Eerste River runs though Stellenbosch, one of South Africa's most beautiful, economically active towns. From its pristine source, the quality and safety of the river water progressively deteriorates along its course, with polluted water flowing through the town. This is now being addressed through a community-wide partnership.

The polluted water in the Eerste River – Stellenbosch's main river – and two other rivers that flow into it – the Plankenbrug and Veldwachters – poses a serious health risk to the greater Stellenbosch community and its key economic drivers, notably the wine and fruit producers in the Eerste River catchment.

In response to the many negative consequences of their polluted catchment, concerned citizens and stakeholders from every sector of the Stellenbosch community have come together in the Stellenbosch River Collaborative (SRC). Launched in November 2013, it aims to restore health to the Eerste River Catchment.

In partnership with the SRC and two other conservation organisations – Living Lands and the Wildlands Conservation Trust – the WWF Nedbank Green Trust is helping to finance the restoration of the Eerste River Catchment.

It is part of the WWF Nedbank Green Trust's financing and support of catchment-wide water conservation and community engagement strategies throughout South Africa.

Coordinating the SRC is Charon Marais who is doing her PhD on sustainability and transformational governance through the University of Stellenbosch Business School (USB).

The Stellenbosch University Water Institute (SUWI) has adopted the SRC as an important official project. Stellenbosch's Municipality is actively partnering the initiative.

'It is all about what we call the "river connect" - about connecting neighbours and communities upstream and downstream of the Eerste River to restore health to the river for every member of the greater Stellenbosch community,' Marais explains.

'From people living in Kayamandi and Enkanini informal settlements to big businesses such as Spier and Distell, the health and sustainability of the river affects one and all.'

Members of the Stellenbosch community coming together to help restore health to their river through the workshops hosted by the Stellenbosch River Collaborative (SRC).

The Jonkershoek Nature Reserve above Stellenbosch where the Eerste River is still known as the Jonkers River and the water is pure and clean. Its name changes to the Eerste River as it leaves the nature reserve's boundary.

This kind of project is not negotiable; there is an increase of alien infestation of over 10% of the landmass per year. It's unsustainable and we are already many years down the crisis

Pam Booth

Environmental scientist and a founder director of Eden to Addo

Restoring water, destroying aliens, **creating small enterprises**

The water returns from clearing 1 hectare of condensed black wattle in the Keurbooms River catchment in the mountains above Plettenberg Bay is calculated at 1 773 m^3 (cubic metres) per year. The cost of returning (freeing up) 250 000 m^3 of water per year into the Keurbooms River catchment from clearing 141 hectares of condensed black wattle and other invasive alien trees is approximately R2,5 million. By comparison, the cost of the Plettenberg Bay desalination plant over three years is approximately R38 million, which also yields 250 000 m^3 of fresh water per year when fully operational.

The figures speak for themselves, but it has been a long, hard battle over many years to secure government buy in and support for alien vegetation clearing projects. The key culprits are black wattle, eucalyptus species, blackwood acacia and runaway pine species that have escaped from the commercial pine plantations.

In 2014 a non-governmental organisation (NGO) by the name of Eden to Addo, which is supported by WWF-SA, the WWF Nedbank Green Trust and the Table Mountain Fund, managed to secure three years of funding to the value of R7,7 million from the Department of Environmental Affairs (DEA) for the clearing of alien vegetation in the Keurbooms River catchment.

The money was made available on condition that Eden to Addo raise co-financing funds for the management of the project, to secure new jobs and to explore the creation of small enterprises from the wood biomass produced from alien clearing.

'This is where the WWF Nedbank Green Trust stepped in with generous funding over two years – from 2014 to 2017. This funding combined with contributions from the Plettenberg Bay community has made the whole project possible,' explains the project manager, Pam Booth, an environmental scientist and a founder director of Eden to Addo.

'This kind of project is not negotiable; there is an increase of alien infestation of over 10% of the landmass per year. It's unsustainable and we are already many years down the crisis,' Booth explains.

'In 2010 the Bitou Municipality, which includes Plettenberg Bay and surrounding communities, declared a state of emergency because there was no water left in the Keurbooms River for domestic purposes, and the flow had gone below the ecological reserve of 300 litres per second.'

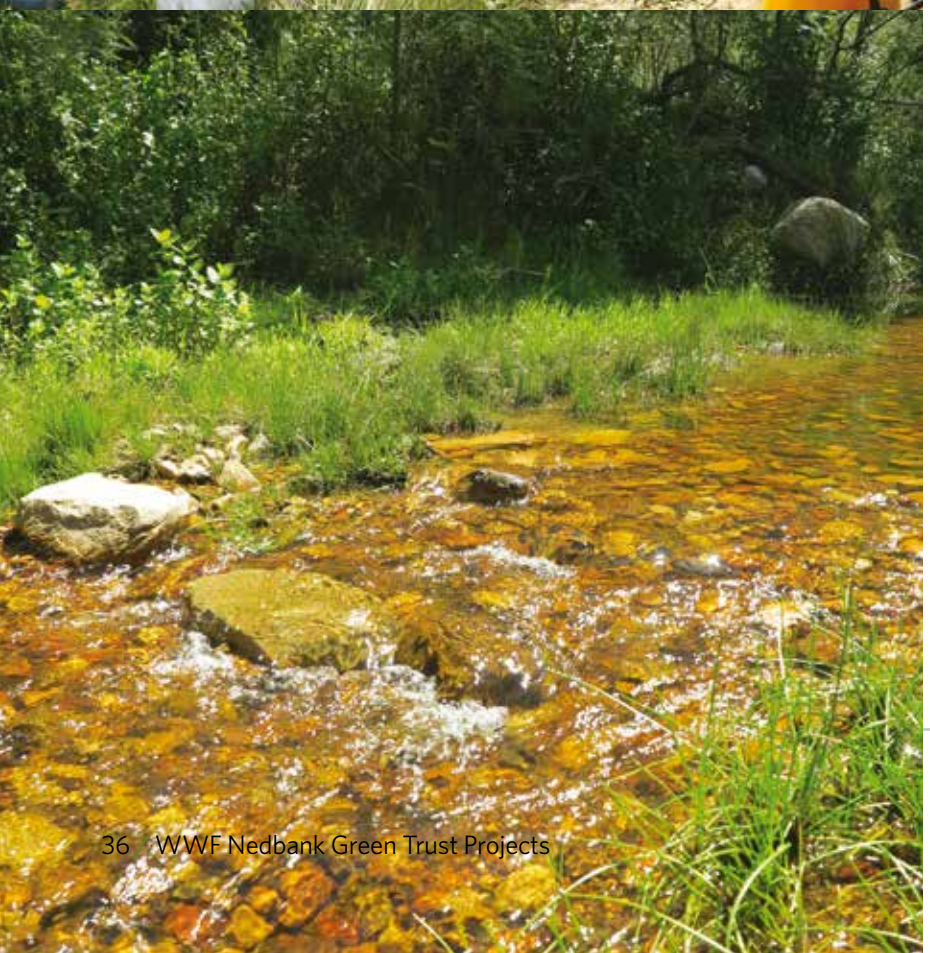
An emergency response was to finance the construction of a desalination plant, while the catchment-clearing solution was turned down.

'It's all about the historical belief in hard engineering solutions, which in this case did not prove successful as the desalination plant in Plettenberg Bay was built as a peak-demand facility and it is often not operational,' Booth continues.

One of the reasons for its demise is that they did not do an Environmental Impact Assessment before building the plant at the mouth of the Piesang River, only to discover that the plant could not operate when the mouth closed.

Where one mouth closes, another opens, and this time it opened the way for an ecological services solution to the alien 'pandemic', which also poses a major fire risk to the entire area. In the first two months of the project (August and September 2014) they cleared approximately 55 hectares in the riparian zone, which was 90% dense with wattle.

The magnificent Garden Route is in danger of being overtaken by alien vegetation. This project is undertaking the mammoth task of starting to reverse this.



'We are absolutely on target with our projected work schedule and the landowners with whom we are have been working, including Barry Rae of Keurbooms River Game Trails, have been amazing,' adds Booth.

The Department of Environmental Affairs is paying the alien clearing team's wages while the WWF Nedbank Green Trust funding, together with local contributions, are being used to pay Booth's salary, to supplement the 'camping out' costs, and to top up the team's wages with a daily food allowance. The funding is also helping to develop small enterprises from the cleared wood biomass, including charcoal, biochar and compost production businesses. Biochar is a refined version of charcoal, which is used to dress soil and to retain moisture in the soil. It is an important ingredient in compost.

Another extremely exciting part of the project is the use of biological control processes, as Booth explains:

'A new bio-control agent for black wattle that has been tested for over 20 years and that has finally become available over the past two years, is a midge from Australia called *Dasineura rubiformis*. We get it from the Plant Protection Research Institute in Stellenbosch,' says Booth who released the first 100 gallons containing midge cocoons in 2012 and 2013. The release is done in June/July when the midges are ready to emerge. They get into the flowers and destroy them, thereby stopping the tree's production cycle before it gets to seed.

At the same time Booth has introduced a weevil, also from Australia, called *Melanterius maculata*, which consumes the green seeds on the tree. The midge and the weevil do not harm the black wattle trees, which are a good source of biomass, but they slow down seed production, and hopefully halt the densification over time.

'It will be the greatest reward for me to see riverbeds that have been dry for decades, flowing once more, with all the benefits to so many people that this project presents,' says Booth.

For more information about Eden to Addo visit edentoaddo.co.za.

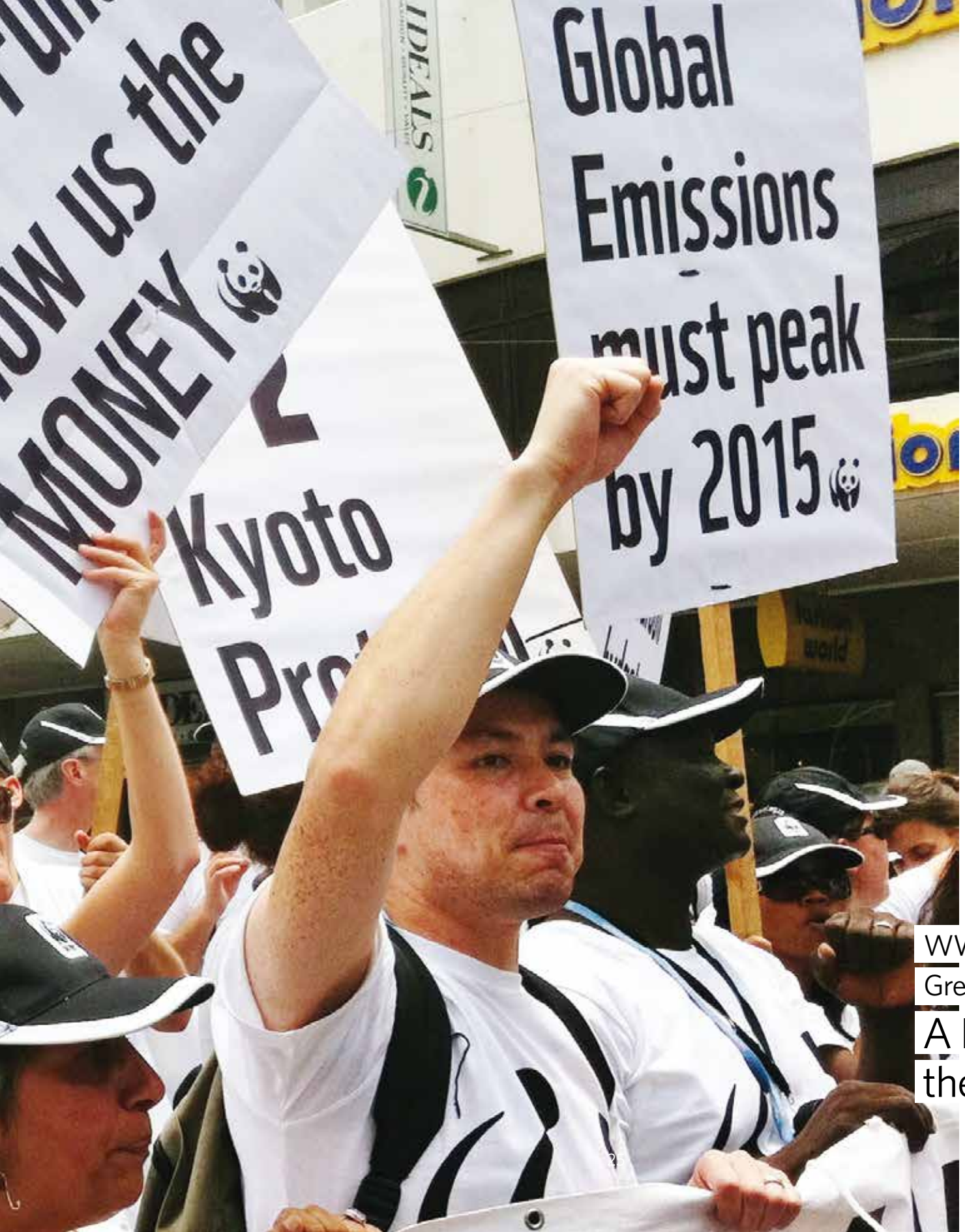
Above: Clearing teammembers mixing the herbicide that is applied to the black wattle stumps after clearing to stop them from coppicing.
Below: A river near the clearing site, this is what the project is aiming for – clear, strong flow.

It will be the greatest reward for me to see riverbeds that have been dry for decades, flowing once more, with all the benefits to so many people that this project presents.

Pam Booth Environmental scientist and a founder director of Eden to Addo

This image illustrates the scale of alien vegetation clearing projects – if you look closely you'll see the tiny figure of the project manager, Pam Booth, standing in the stream.


FOOD. WATER.
ENERGY. FOR ALL.
FOREVER
FOOD. WATER.
ENERGY. FOR ALL.
FOREVER
game



WWF Nedbank
Green Trust Projects

A Planet for the Future

It's extremely important as it is all about developing policy instruments that can be practically implemented by citizens and business in South Africa to bring down our carbon emissions.

Saliem Fakir Head of WWF's Living Planet Unit

A Planet for the Future

We constantly hear about climate change and about the life-or-death threat to our survival if we do not collectively do something about it, including reducing our carbon emissions and developing a green economy.

So what is the WWF Nedbank Green Trust doing about it? A few of the many climate change projects we are funding are discussed here.

Necessary green goals

To lay the foundation for South Africa's practical transition to a lower carbon, climate-resilient economy, the WWF Nedbank Green Trust is funding a climate change response flagship programme.

'We are partnering with government on this to integrate and mainstream the many green economy development plans and programmes within government departments, such as Energy, Trade, Agriculture, Water and Health,' explains the Head of WWF's Living Planet Unit, Saliem Fakir.

'It's extremely important as it is all about developing policy instruments that can be practically implemented by citizens and business in South Africa to bring down our carbon emissions.'

Energy and renewable power

In the first three bidding rounds 4 000 megawatts (MW) have been allocated to independent renewable power (IRP) producers who will feed into the national grid and contribute to South Africa's current 40 000 MW energy requirement per year. Another 1 000 MW are in the process of being awarded to IRP producers.

By 2030 when South Africa's energy requirements will be an estimated 66 000 MW to 70 000 MW per year, 6% to 9% of this will be renewable energy supplied by IRP producers. WWF's research shows that they have the capability to provide 11% to 19%.

'In the near future energy-efficient houses will be the norm at every level of the housing spectrum,' says Fakir, adding that the price of quality solar panels prices will soon come down in South Africa.

Solar park in Germany – one of the world's renewable energy leaders.

Low-carbon transport

A major carbon-footprint-focused programme is the WWF Nedbank Green Trust Transport Low-Carbon Frameworks Programme, headed by Louise Naudé.

To reduce the carbon footprint on South Africa's major road corridors, this project is looking at shifting the transport of processed foods (such as tinned foods) from road to rail.

'Processed foods are the commodity group with the highest freight carbon footprint on South Africa's major road corridors, namely the Gauteng-Cape Town corridor and the Gauteng-Durban corridor,' Naudé explains.

'We are currently working on solving the many logistical issues involved in such a shift, with considerable input from processed food companies, logistics companies, road freight operators, labour and Transnet. Fortunately there is great willingness all round to work with us on the project,' says Naudé. 'If we can achieve this, the benefits to the economy, to climate change mitigation and to water use are considerable.'

Planning instruments	Regulatory instruments	Economic instruments
Infrastructure planning, planning of low-carbon electricity sources.	Physical standards (emission limits, vehicle and fuel standards), export restrictions, special limits.	Carbon tax, fuel subsidies/taxes, congestion charging, toll roads, incentives for cleaner fuels.

Information instruments	Technological instruments
Increase awareness of real costs and alternatives, eco-driving schemes, awareness campaigns, labelling.	Research and development for fuel improvements, cleaner technologies, improved vehicles.

Boom Flats in Brooklyn, Cape Town where the green retrofit is taking place. The building is solid from the outside but was extremely energy inefficient.

Greening of social housing

At the household level, the WWF Nedbank Green Trust is funding a Greening of Social Housing Project. In partnership with the National Social Housing Association, a pilot green retrofit is being done on five ageing social housing apartment blocks in Brooklyn (near Milnerton) in Cape Town, called 'Boom Flats'. In addition, a new green pilot build is being planned for Gauteng.

The retrofit includes solar geysers, building insulation, waterwise installations (eg showers with water-efficient shower heads and dual-flush mechanisms), wall-panel heaters that use minimal electricity and certain infrastructural changes, such as installing windows on north-facing walls for more light and warmth.

All products used in the retrofit are quality-approved and they enhance warmth and comfort for the tenants while reducing their monthly costs.

Green is about holistically empowering people

'Greening is about holistically empowering people to improve the quality of their lives,' explains project coordinator Jocelyn Muller who is leading the tenant engagement side of this initiative to help tenants understand the benefits of living green.

'In addition to the technical issues, there are so many other green issues that we are addressing, including the amount of chemical detergents the tenants use and the type of food they eat. One of the tenants has established a vegetable garden, and he is now giving vegetables to his neighbours.'

An important part of greening is community connectedness. Many people in the Boom Flats have never met their fellow tenants even though they have all lived there for years. Sharing and developing a sense of community is all part of greening.

Jocelyn Muller **Project coordinator**

WWF Nedbank
Green Trust Projects

Food for the Future

Food for the Future

Developing a climate-resilient South African fruit sector

South Africa has approximately 3 445 export fruit growers who are coming together under one body to consolidate the industry, based on sound, internationally benchmarked social, ethical and environmental principles.

The WWF Nedbank Green Trust, together with the Dutch Ministry of Foreign Affairs, cofunded this initiative from 2011 to 2014. The Global Environment Facility (GEF), through the South African National Biodiversity Initiative, will fund it for the next four and a half years.

To achieve this the WWF Sustainable Fruit Initiative is collaborating with the Sustainability Initiative of South Africa (SIZA) through Fruit South Africa (FSA). FSA is the umbrella body of all the fruit industry associations in South Africa and exporters who are members of the Fresh Produce Exporters' Forum.

'We are using the internationally recognised Global Social Compliance Programme as our benchmark of global standards and requirements to create one platform to support growers. This will enhance the performance and sustainability of the local fruit industry and at the same time satisfy the requirements of international retailers,' says the Manager of the WWF Fruit and Wine Programme, Shelly Fuller, who is leading the WWF Sustainable Fruit Initiative.

The key export markets for South Africa's export fruit growers and 95 export agents are the United Kingdom, the European Union, the Middle East, Asia and the United States. In addition to the export market, South Africa has approximately 400 fruit growers who supply the local market.

'WWF's support to the fruit sector focuses on assisting growers to stay up to date with locally relevant compliance. We also prioritise efforts to address specific local or regional catchment-level environmental risks and challenges that farmers face so as to ensure climate-resilient fruit production,' Fuller explains.

Since its launch in 2011 the WWF Sustainable Fruit Initiative has completed a significant amount of groundwork in collaboration with FSA, including researching climate risks, variability, and regional and local challenges in the fruit industry.

'Changing seasonal patterns, intensity of rainfall, increasing wind intensity and a poor-quality water supply are key risk factors that growers are facing in many regions,' continues Fuller.

South Africa has approximately 3 445 export fruit growers and an additional 400 fruit growers who supply the local market.

'We need to understand these impacts at the farm level and at the local and regional level, to determine what activities can reduce these risks and impacts.'

In the Ceres area, increasing vulnerability to water risks (scarcity and water quality concerns) are being carefully monitored and a coalition of farmers are working closely on water stewardship and collective catchment-wide action to manage and address these challenges.

In the stone fruit sector (peaches, apricots, plums, nectarines) of the Little Karoo (including Worcester, Robertson and Oudtshoorn) and Ceres, where growers are experiencing frequent extreme hail and wind during harvest time. They are now investigating shade cloth and netting options to protect their crop. Catchment-wide management of water quality is another pressing issue.

Fuller offers the example of the Palmiet River catchment area of the Elgin/Grabouw region where wine and fruit farmers typically export 60% to 70% of their produce. Many producers have good water management systems on their farms. However, if the municipal water and waste systems are not well managed, the poor quality water threatens the farmers' export market because the water is used throughout the production process – for irrigation, packaging and bottling.

'Wine and fruit exporters have to comply with stringent international food safety certifications, such as Global GAP, Tesco Nurture and LEAF, all of which include strictly-monitored food health and safety regulations, and social and environmental regulations,' explains Fuller. 'If these certifiers carry out tests in an area and find E. coli in the water because sewerage hasn't been properly managed or because raw sewage is flowing into the rivers, it hits the export market. At the same time it threatens the health of the people living in this region and the sustainability of the water supply. Therefore, everyone needs to work together within the broader catchment to manage the collective risks.'

To improve and standardise the social and ethical side of the South African fruit industry, which is also a requirement of the international certifiers, SIZA has been working with the fruit industry and retailers since 2008.

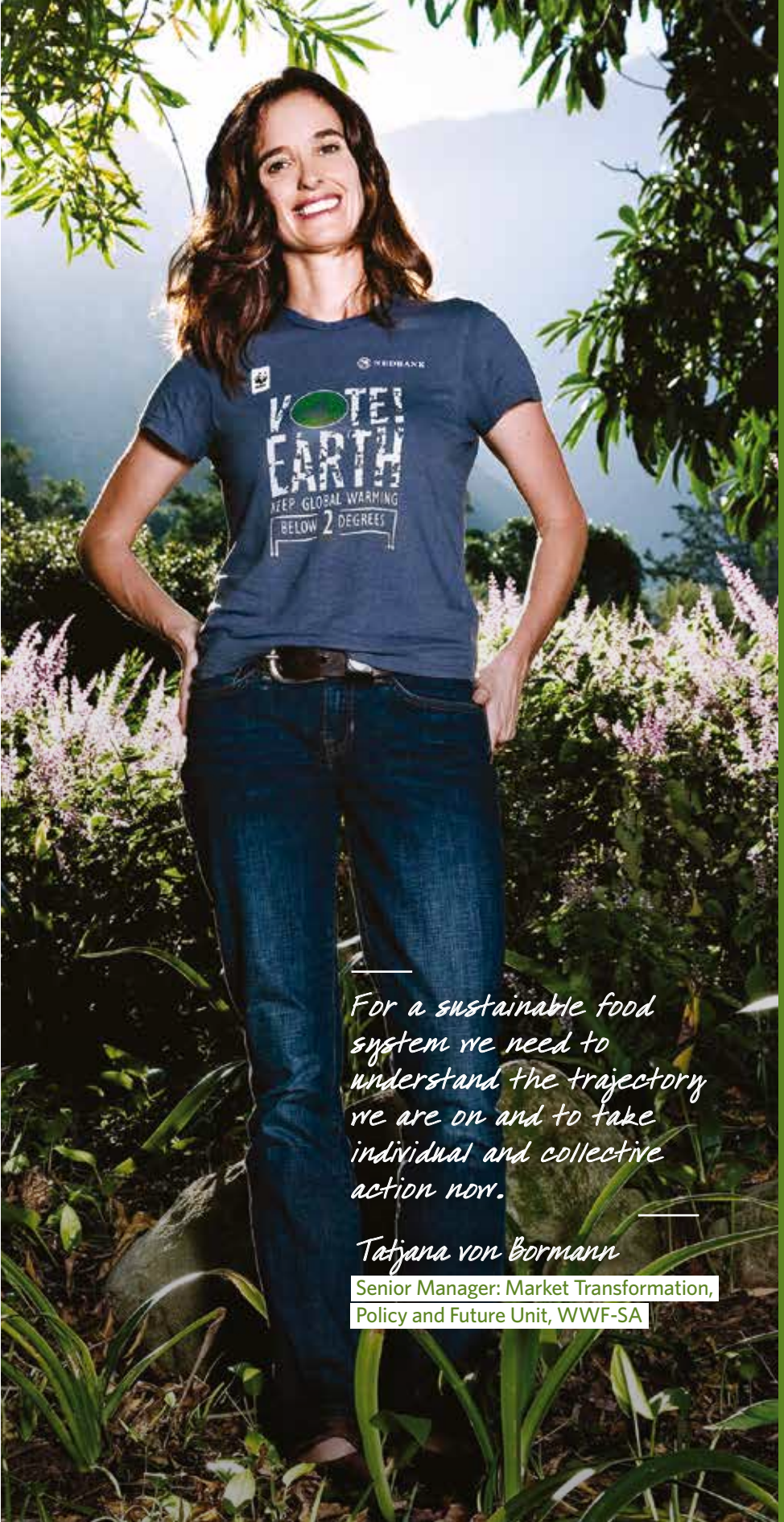
'We want to entrench a standard for the South African fruit industry that is locally and internationally recognised, and which includes all the requirements of the Global Social Compliance Programme,' explains SIZA programme coordinator, Colleen Chennells.

'These range from fair working conditions and hours for farm labourers and the payment of minimum wages, through to the prohibition of child labour on farms and good working relationships with the unions and all partners in the value chain.'

SIZA opened registration for South African fruit growers, retailers and exporters at the beginning of 2013 and it already has over 1 341 members.

'SIZA is not an accreditation scheme; it is a countrywide initiative that has established an international standard aligned to South African labour law, which supports best practice and commitment for the South African fruit industry,' Chennells adds. 'We are working with the industry and government to implement the programme, which we hope to see extended to all areas of agriculture down the line.'

Fair working conditions and hours are part of the programme.



For a sustainable food system we need to understand the trajectory we are on and to take individual and collective action now.

Tatjana von Bormann

Senior Manager: Market Transformation, Policy and Future Unit, WWF-SA

Food Security for South Africa

Up to 50% of South Africans do not know where their next meal is coming from, yet we are able to produce more than enough to feed the nation. A key factor contributing to this percentage is South Africa's high unemployment rate of 25%, according to the latest statistics from Stats SA.

'This translates into the inability of many households to buy enough food or adequate nutritious foods to meet their dietary requirements,' says Tatjana von Bormann, Senior Manager: Market Transformation, Policy and Future Unit, WWF-SA. 'The problem has become more acute due to the openness of South Africa's market, which results in international food price shocks being transmitted down to local wholesale and retail prices. We further need to recognise that hungry people are angry people and when food prices rise, it can coincide with violent outbursts.'

To answer these and other key food-related questions, the WWF Nedbank Green Trust funded a 'Food Security Transformative Scenarios Process', facilitated by the Southern African Food Lab, a civil society initiative, housed under the umbrella of the Food Security Initiative at Stellenbosch University.

Thirty people from across the entire food spectrum, including CEOs of food companies, farmers, academics, financial institution managers and members of labour unions and NGOs, came together in 2014 and 2015 for two, intensive, three-day learning journeys to understand and discuss how to effectively address the emerging failings of South Africa's food system.

'During the learning journeys they were exposed to entire food food chain process, from the challenges of farming and fishing, to the challenges of ecosystems management, to how the Joburg food market operates to the informal food markets in Alex Township. Several speakers addressed the group, including representatives from government, agriculture, fisheries and seed companies,' von Bormann continues.

A comprehensive review of all literature pertaining to food in South Africa was also shared with the group, which then broke into smaller teams to discuss the building blocks of a functioning food system, including:

- *Food as a natural resource*
- *Food production*
- *Food in the political economy*
- *Food nutrition*

From here they developed a range of realistic 'what if' scenarios that South Africa needs to face, including:

- *What if we experience an increase in protracted droughts over the next 15 years?*
- *What if we do not ensure that effective, equitable and properly managed land reform takes place?*
- *What if we do not address the rising costs of energy, water and food?*
- *What if malnutrition becomes so bad that it inverts South Africa's growth and prosperity?*

'While policy interventions like welfare payments, school feeding schemes and food packages can act as safety nets for poor households, they do not fundamentally alter the ongoing inability of households to afford healthy food,' von Bormann explains.

'As a result of financial circumstances and convenience, their diets generally include an excess of sugar and salt, which is associated with rising rates of over-weight, obesity and diet-related chronic diseases, including heart disease, diabetes and some cancers.'

In South Africa there is also an increased consumption of fast foods, which are generally low in micronutrients and fibre, and high in sugar and salt. Research shows that fast foods such as hamburgers, fried chips and vetkoek are a regular part of the South African diet. The group explored these and many other food-related issues, including the role of big business and large food chains in the food cycle.

The 'Future of Food report 2015- 2030', which emanated from the Transformation Scenarios process, was presented at the Office of the Presidency's forum on Comprehensive Rural Development and Land Reform on 31 March 2015. On 17 April 2015, the Southern African Food Lab's Dr Scott Drimie was invited to present and facilitate discussions with the Department of Agriculture, Forestry and Fisheries and the Department of Social Development to support their development of the implementation plan for the national Food and Nutrition Security Policy.

'Leadership from across the food system is now in a far stronger position to engage in cross-sector responses to food security, and to drive policies with a more informed approach, putting the farmer's voice at the centre of the system, including smallholder farmers,' says von Bormann.

'The purpose of the Transformative Scenarios process was to get people thinking, talking and working together more constructively toward a future in which there is good food for all. It is just the start but it proved to be a powerful catalyst in addressing a system in crisis.'

Top: Informal food markets play a significant role in SA's food economy.
Right: Looking to a future where there is good food for all South Africans.

Up to 50% of South Africans do not know where their next meal is coming from, yet we are able to produce more than enough to feed the nation. A key factor contributing to this percentage is South Africa's high unemployment rate of 25%, according to the latest statistics from Stats SA.

For more information visit:
thefutureoffood.co.za
southernafricafoodlab.org

Top: A camera trap set up in the Laingsburg-Beaufort West district of the Karoo.
Bottom: A Black-backed jackal caught on camera.

Predators, farmers and biodiversity

It's a first for South Africa and it is also one of the largest camera trap surveys ever undertaken in southern Africa. Between October 2012 and June 2015, 332 camera traps were set up over a survey area of approximately 160 000 hectares.

The area includes 22 sheep farms in the Laingsburg-Beaufort West district of the Karoo and the Anysberg Nature Reserve, one of CapeNature's reserves, situated southwest of the project farms. Half of the camera traps were set up on the farms and the other half in the reserve.

The camera traps were part of a three-year research project on the effect of predators on sheep farms, combined with a biodiversity assessment of the area. Smaller assessments have been done on individual farms but never on this scale.

'Karoo sheep farmers are losing livestock to jackal and caracal at an unsustainable rate. They are forever being told to stop persecuting predators and at the same time they are being told to produce food. We need to work with farmers to understand exactly what is happening on these farms from an holistic perspective, including an assessment of predators, farm management and the general biodiversity status of the area,' says behavioural ecologist Professor Justin O'Riain of the University of Cape Town's Department of Biological Sciences.

A way forward for Karoo farmers besieged by predators will hopefully be found in the course of the project, funded by the WWF Nedbank Green Trust and managed by the University of Cape Town's Sustainable Societies Unit in the Centre for Social Science Research (CSSR).

In the field is Marine Drouilly, a PhD student whom O'Riain is supervising. An incredibly hard-working researcher who is passionate about the project, she is comparing her on-farm research and data with her research and data from the Anysberg Nature Reserve. She will share her findings in 2016.

'Preliminary observations indicate that livestock farming in the Karoo supports a relatively healthy diversity of wildlife, with the exception of large carnivores such as leopards, which are absent. Perceptions that this agricultural sector poses a severe threat to biodiversity is simply not supported by the data,' Drouilly explains.

'There is a also a strong perception that nature reserves and game farms provide refuges for jackals, and an important part of the project is to analyse jackal and caracal scats to determine what they eat and where.'

'So far my analysis suggests the jackals in my study that moved between "weekend farms" without livestock and farms with livestock, tended to prey on sheep, as did the jackals that moved between the sheep farms. They also preyed on wild animals. The jackals in the Anysberg, by comparison, predominantly preyed on wild animals, mostly rodents, berries and insects, even when they roamed outside of the reserve.'

Drouilly does not have a similar comparison for caracal, because all the caracals she studied were on livestock farms. 'There were not a lot of caracals in the reserve, possibly because of the presence of leopards there,' she explains.

'What is interesting is that my preliminary on-farm analysis of GPS clusters from the GPS-collared caracals indicate that some of them never ate any sheep while others were eating one a week. Those that did not eat sheep preyed on a range of wild animals, including dassies, rabbits, hares, monitor lizards, aardwolf, steenbok, duiker and birds.'

An important dimension of the project was the collaring of 9 jackals on the farms and in the reserve, and 13 caracals on the farms. Drouilly used satellite technology to track how they navigate the landscape, how they respond to so-called jackal-proof fences, and the size of their home range in farming areas compared to the natural areas.

'We also want to establish where they drink,' continues Drouilly. 'There is a strong sense that the movement of these predators into the Karoo over the past couple of decades could have a lot to do with the establishment of permanent water on farms and in nature reserves.'

'Historically, many species including jackals would have moved in and out of these areas in accordance with the Karoo's unpredictable rainfall. The provision of permanent water may thus have changed the ranging patterns of many species.'

In addition to Drouilly's project, a concurrent management survey was conducted on farms in the project area, led by Associate Professor Beatrice Conradie who is an agricultural economist and the Director of the Sustainable Societies Unit at the University of Cape Town.

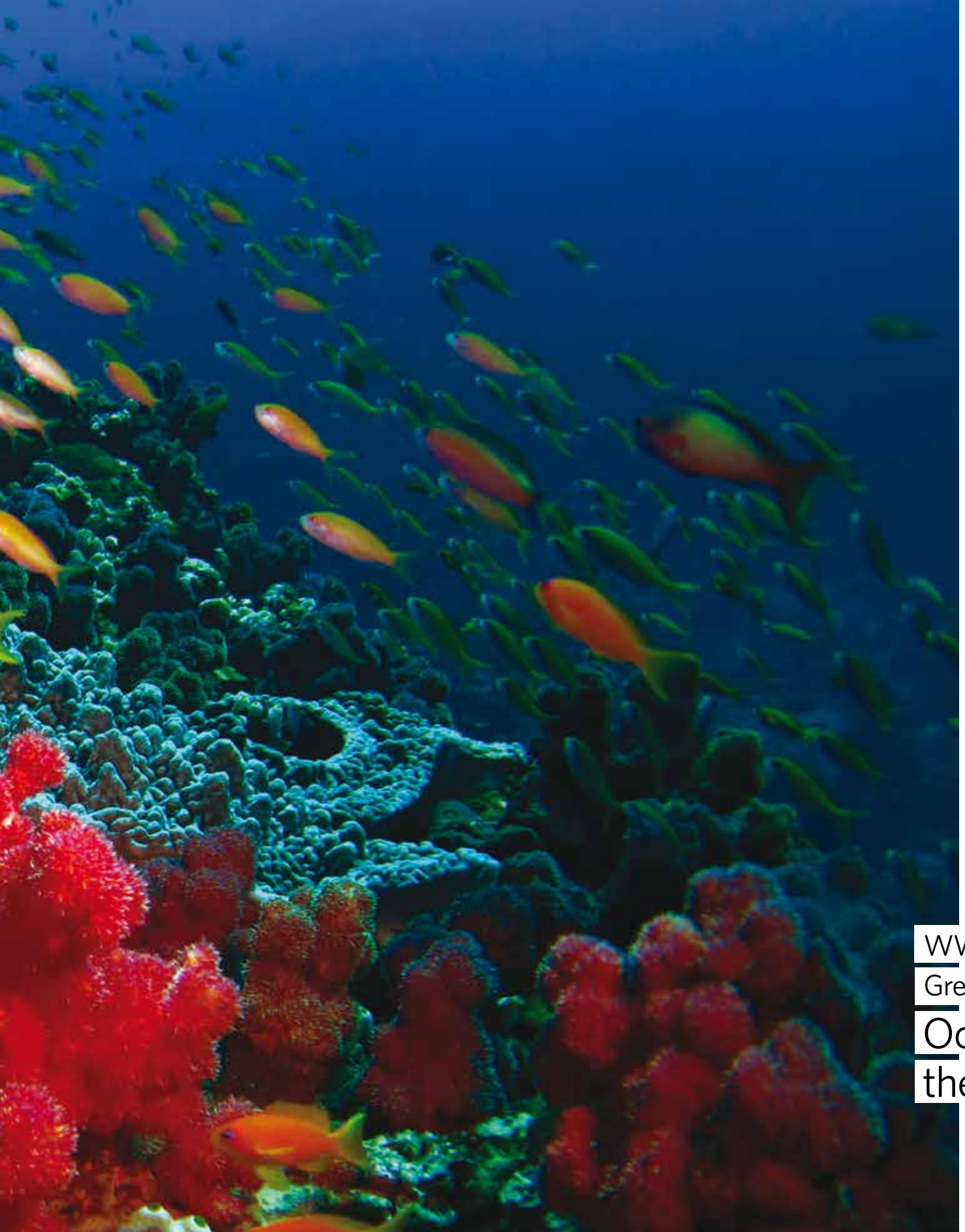
The purpose of the management survey is to investigate the levels and determinants of the profitability of sheep farming.

Laingsburg is a very marginal area. Rainfall is in the order of 120 mm to 130 mm per year. The average flock size is 642 ewes, but a quarter of the flocks consist of fewer than 300 ewes each and half the farmers have an income similar to that of schoolteachers.

'What is special about this project is that academics and farmers are talking to each other about these issues,' says Conradie. 'What is at stake is the farmers' livelihoods and also the livelihood of the entire local economy. If agriculture disappears, Laingsburg only has the N1 and that is not enough to maintain a viable town.'

'We don't know what the best management practice for predators will be at this stage,' says O'Riain. 'What we are offering is sound collaborative science from which we can then discuss the way forward once we have concluded the baseline research.'

Trekking sheep on Merweville Road. Photo by Nicoli Nattrass.



WWF Nedbank
Green Trust Projects

Oceans for the Future

25 Years of the WWF Nedbank Green Trust

Oceans for the future

South Africa has exceptional marine biodiversity with approximately 2 200 fish species and at least 11 000 species of invertebrates and plants. An estimated 33% of these species are found only in South Africa and our knowledge of the vast majority is hopelessly inadequate.

Dr Kerry Sink Marine Programme Manager at the South African National Biodiversity Institute (SANBI)

Dr Kerry Sink in the Comores.

Above: Tagging Galjoen.
Below: Small-scale fishers. Photo by Peter Chadwick.

Great science, great strides: the SeaChange Project

'I feel very positive about the strides forward we are seeing in policy and willingness to conserve South Africa's oceans, as a result of initiatives like the SeaChange Project,' says Dr Kerry Sink, Marine Programme Manager at the South African National Biodiversity Institute (SANBI).

'Today there is far more willingness from key stakeholders, such as the mining and trawl fishing industries, to partner with us in the conservation of South Africa's oceans,' says Dr Kerry Sink who led the two-year SeaChange Project, funded by the WWF Nedbank Green Trust.

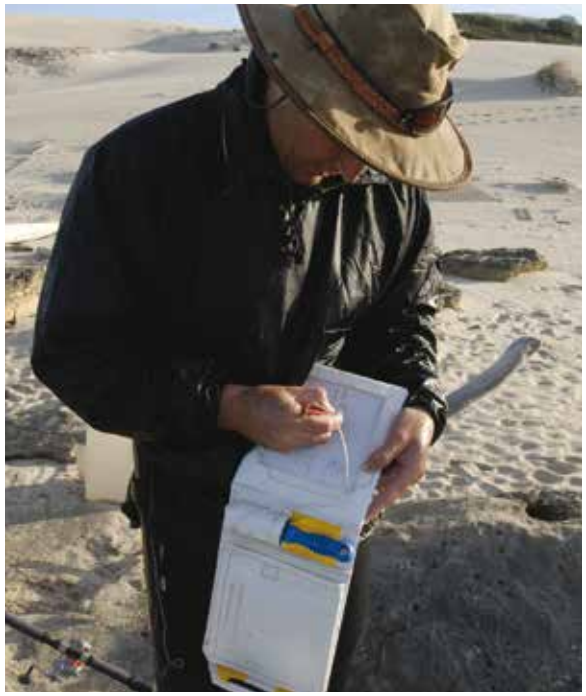
A key objective of this project was to put together South Africa's first comprehensive National Marine and Coastal Biodiversity Assessment. It meant mapping 136 coastal and marine habitats for the first time, as well as assessing their ecosystem threat status.

This is essential to inform policies and priority actions for threatened ecosystems and the more than 500 species caught in South Africa's oceans.

'South Africa has exceptional marine biodiversity with approximately 2 200 fish species and at least 11 000 species of invertebrates and plants,' says Sink. 'An estimated 33% of these species are found only in South Africa and our knowledge of the vast majority is hopelessly inadequate.'

Sink adds that of the 136 coastal and marine habitats, 46% are threatened and 40% or 54 of our habitat types are not represented in Marine Protected Areas (MPAs). In other words, they have zero protection. Most of these habitats are offshore, in waters deeper than 30 metres.

'Priority actions and policies need to be put in place for Ecologically and Biologically Significant Areas that are sensitive to activities such as trawling and mining,' says Sink. An example is the Central Agulhas Bank, which is part of the southern African continental shelf, extending 250 kilometres south of Cape Agulhas.



Above: Dr Kerry Sink and her Remotely Operated Vehicle – this machine gives Sink and her team 'eyes' on the seabed.
Below: Recording fish-tagging data.

The mud habitats here support key species, such as the bottom-dwelling East Coast Sole, and are highly sensitive to impact because they comprise fine sediments that have taken many years to settle.

'We just don't know enough about them and we need to research them to understand the impact of trawling,' says Sink.

The same applies to Child's Bank, a unique submarine bank rising from 400 m to 200 m, approximately 350 km offshore from Hondeklipbaai on the West Coast. It includes critically endangered and vulnerable habitats, rich in cold-water corals, hydrocorals, gorgonians and glass sponges.

'We are proposing that this seabed should be a reference area for novel research and therefore it should be closed to any kind of mining or trawling,' explains Sink.

She adds that advances made with the mining and trawl industries are evident in their support of research and, in the case of the trawl industries, their recognition of the need to be eco certified to access international markets.

As part of the project Sink also developed the FishForLife Project, in which recreational fishers throughout South Africa contribute to species research and good practice for threatened species. This project received additional funding from the WWF Nedbank Green Trust.

The SeaChange Project was further able to catalyse the development of a permanent post for a Marine Programme Manager in SANBI. This represents a long-term achievement for marine biodiversity science, policy advice and support for improved marine biodiversity management in South Africa.

'Our work includes helping to spearhead the establishment of several Marine Protected Areas (MPAs), including the Addo MPA, the Namaqualand MPA, an offshore MPA on the Tugela Banks and the expansion and consolidation of the Aliwal Shoal MPA,' says Sink. The project also provided support for the proclamation of the Prince Edward Islands MPA.

'On the West Coast we are ever closer to having the Namaqualand Marine Protected Area (MPA) proclaimed, with final boundaries being negotiated with the oil and gas companies,' Sink adds. 'This MPA was first proposed in 1977 when I was four years old and I am now in my forties, so it will be a great day for marine conservation once it is proclaimed.'

South Africa's first Reef Atlas

Scuba divers, citizen scientists and underwater photographers are the backbone of South Africa's first Reef Atlas. They provided thousands of GPS points, videos and photographs to help map all the reef systems in South Africa's oceans.

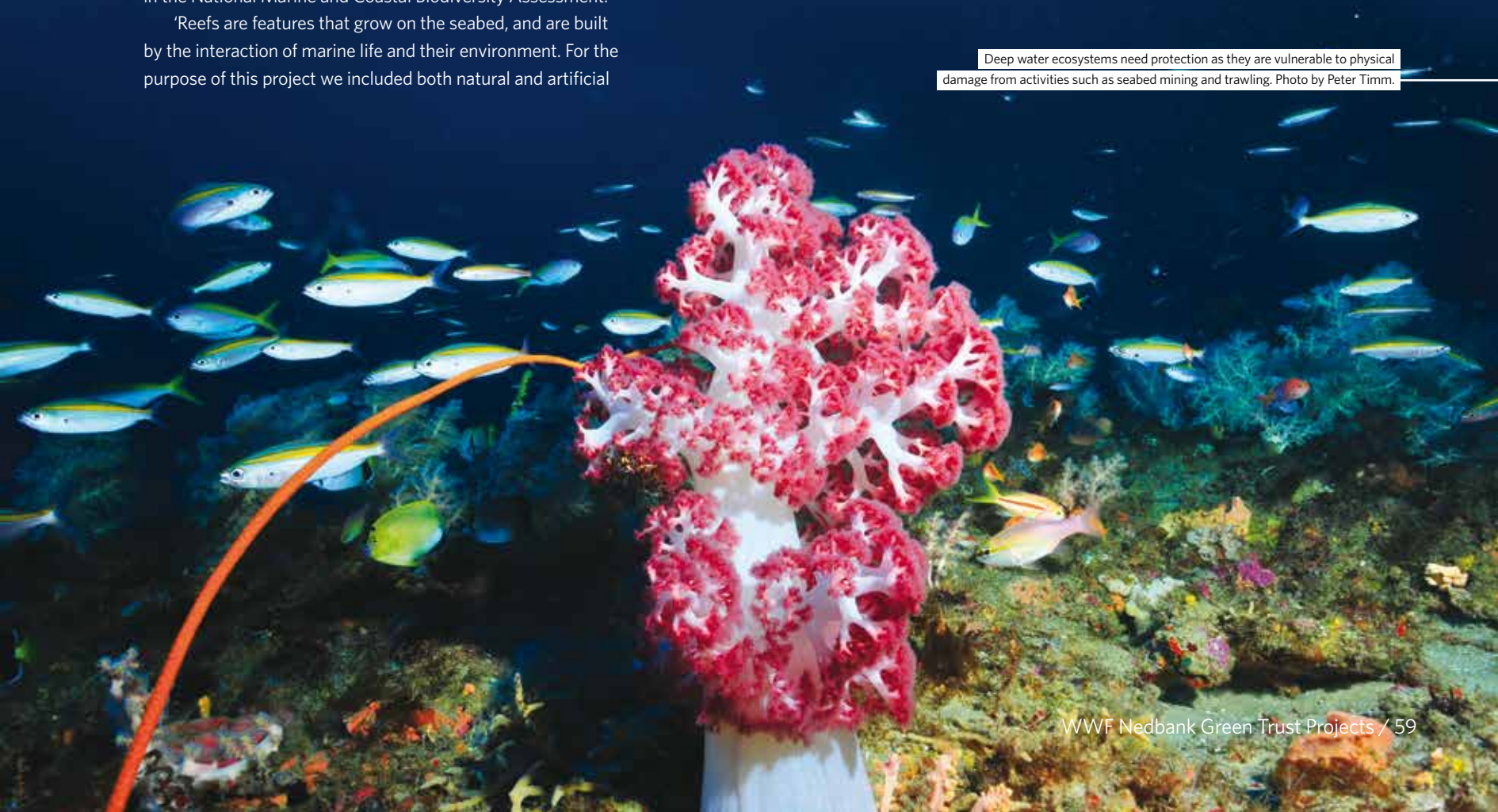
'The Reef Atlas now has 390 mapped reef systems, several of which have been identified for the first time. It also has 1 300 photos with corresponding GPS co-ordinates, and we will keep adding to it each year as new information becomes available,' says SANBI Marine Projects Manager, Prideel Majiedt, who led the Reef Atlas Project together with SANBI's Marine Programme Manager, Dr Kerry Sink.

This four-year project sponsored by the WWF Nedbank Green Trust is a first for South Africa, and it has been included in the National Marine and Coastal Biodiversity Assessment.

'Reefs are features that grow on the seabed, and are built by the interaction of marine life and their environment. For the purpose of this project we included both natural and artificial systems, including coral reefs, rocky reefs, kelp beds and wrecks,' explains Majiedt who has a degree in Biodiversity and Conservation Biology, and who learnt to scuba dive at the outset of this project.

The mapping of the reefs is a stepping stone to more detailed species mapping, which will be invaluable for the management of reefs and reef species, many of which are targeted by the fishing industry. Apart from a few reef types in KwaZulu-Natal, most of our reefs are not well protected.

REEF ATLAS PROJECT
DIVE IN SOUTH AFRICA



Deep water ecosystems need protection as they are vulnerable to physical damage from activities such as seabed mining and trawling. Photo by Peter Timm.

Recreational divers and citizen scientists submitted photographs and GPS points for SA's first Reef Atlas.

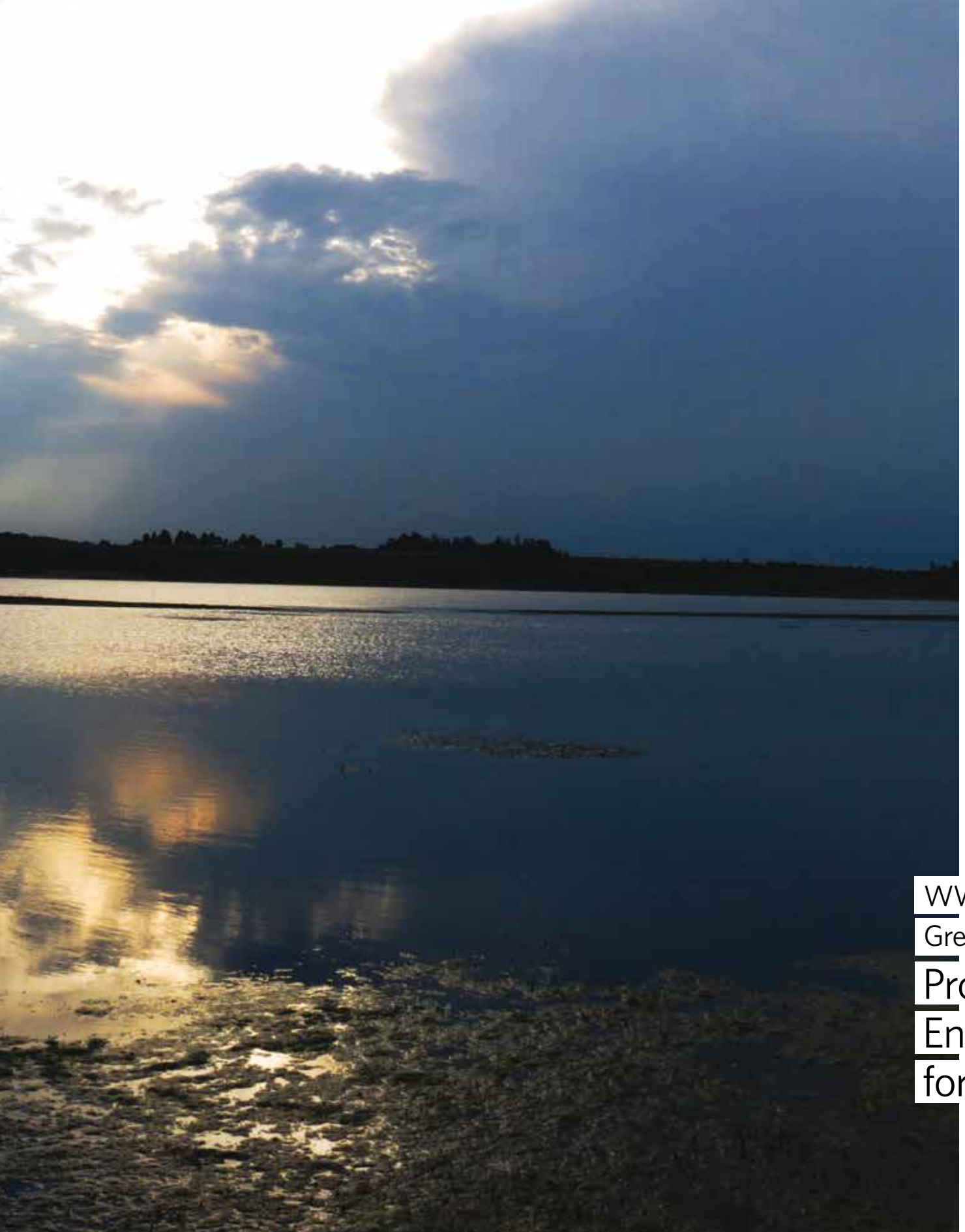
Reefs are features that grow on the seabed, and are built by the interaction of marine life and their environment. For the purpose of this project we included both natural and artificial systems, including coral reefs, rocky reefs, kelp beds and wrecks.

Prideel Majiedt SANBI Marine Projects Manager

'Several fish species, such as the Red Stumpnose and Red Steenbras are very closely associated with reef systems. These species need to be 20 to 30 years old before they get to a good size. The vulnerability of these and many other slow-growing species speaks for itself,' explains Majiedt who travelled South Africa's coastline to recruit citizen scientists, organisations and industries with a stake or interest in the ocean to participate in mapping the reefs.

Two citizen scientists who went out of their way to assist the Reef Atlas are Peter Southwood and Georgina Jones, both of the Southern Underwater Research Group (SURG) – a group of recreational divers who share a keen interest in the science and biology of reef systems and species.

'Peter, who is an engineer by profession, has been our overall Project Champion. Of all the citizen contributions he has submitted the most dive positions and the most images, and he mapped some of the reefs himself, using his own innovative methods,' says Majiedt, adding that the Reef Atlas demonstrates the power of public participation in science and how citizens can build the knowledge base for improved biodiversity management.



WWF Nedbank
Green Trust Projects

Protected Environments for the Future

Protected Environments for the Future

In January 2014 an area spanning 60 000 hectares in Chrissiesmeer, Mpumalanga – a critical freshwater production area known as South Africa's Lake District – was proclaimed a Protected Environment. This is South Africa's largest protected environment to date, with over 60 farmers and landowners coming together through the Biodiversity Stewardship Programme.

Protecting SA's Lake District

This freshwater victory for South Africa is part of a programme funded by the Endangered Wildlife Trust (EWT) and the WWF Nedbank Green Trust that is focusing on securing 95 000 hectares in three of South Africa's key freshwater production areas in Mpumalanga: Chrissiesmeer, Sheepmoor and Steenkampsberg.

'These regions include the upper catchments of the Vaal, Usutu, Komati, Crocodile and Olifants Rivers – major water sources for South Africa's economic hubs in Gauteng, Mpumalanga and KwaZulu-Natal, as well as for Swaziland and Mozambique,' explains Senior Field Officer for the Highveld Crane Conservation Project, Ursula Franke, who is coordinating the protected environment initiative in partnership with the Mpumalanga Tourism and Parks Agency (MTPA).

These regions also include substantial natural water storage systems in the form of lakes (Lake Chrissie at 1 150 hectares when full, is the largest natural freshwater lake in South Africa), wetlands and peatlands, some dating back 12 000 years.

They are home to a vast number of bird species, many of them rare and endangered, including South Africa's three crane species: the Blue, Grey Crowned and Wattled Crane. There are an estimated 265 Wattled Cranes left in South Africa, and very few breeding pairs, one of which is in Lakenvlei.

All three regions are being targeted by open cast coalmining and other unsustainable land uses that directly threaten the freshwater resources and livelihoods of the land users, farmers and communities. The land is predominantly used for sheep and cattle farming, agricultural lands, including maize and soya beans, some forestry, ecotourism and trout farming and fishing.

Following on the Chrissiesmeer achievement (which will be expanded to 80 000 hectares in Phase 2), in May 2014 Mpumalanga's MEC for Economic Development, Environment and Tourism at the time, Pinky Phosa, signed the Intent to Declare the Greater Lakenvlei Protected Environment (GLPE) in the Steenkampsberg region. This includes 14 000 hectares of the Lakenvlei peatland wetland system between Belfast and Dullstroom, with 25 landowners coming on board. This is Phase I of this protected area. The intention is to expand it to 20 000 hectares in a second phase.

Landowners who commit their land to a protected environment under the Biodiversity Stewardship Programme are obliged to implement a management plan that includes sustainable land use in terms of livestock grazing and burning practices, no ploughing up of virgin land, and contributing to the biodiversity conservation of the region.

Franke and her team are focusing on partnership initiatives with the local communities in the protected environments, including ecotourism, alien vegetation clearing and wetland rehabilitation programmes. The communities have historically been part of the farming and tourism sector of the region.

The Endangered Wildlife Trust (EWT) is one of the WWF Nedbank Green Trust's conservation partners. The EWT has been working on crane and habitat conservation in the Chrissiesmeer, Sheepmoor, Steenkampsberg region since 1994. The WWF Nedbank Green Trust funded BirdLife South Africa's Important Bird Areas Programme in the grassland biomes of Mpumalanga and the Free State from 2011 to 2013 and the Karoo Blue Crane Conservation Project from 2005 to 2010. It is currently funding BirdLife South Africa's Important Bird and Biodiversity Grasslands Programme in the Free State.

A Protected Environment is effectively one step under a National or Provincial Nature Reserve, enjoying a high level of formal protection. The state does not have the resources to achieve protected area expansion by purchasing land and, therefore, biodiversity stewardship is the mechanism through which private individuals and communities (including land reform communities) can play their part in environmental conservation.

Left: Ursula Franke, Senior Field Officer for the Highveld Crane Conservation Project, sitting among the Chrissiesmeer Pineapple flowers.
Right: Grey Crowned Cranes in the greater Chrissiesmeer area.
Photo by Ursula Franke.

350 grassland bird species

Water, grasslands and grassland birds go together. You simply cannot secure water production for South Africa without securing the grasslands, which are our natural water factories.

'With WWF Nedbank Green Trust funding, we are currently working with government and private landowners to secure three Important Bird and Biodiversity Areas (IBAs) in high water yield grasslands in Mpumalanga and the Free State,' says BirdLife South Africa's Daniel Marnewick, who manages the IBA Programme.

He explains that 350 of South Africa's 844 bird species occur in our grasslands, 40% of which are 'grassland specialists', meaning they do not live anywhere else.

Amongst these are 29 of the 133 South African Red Data bird species, which occur in grasslands and associated wetlands, including all five of South Africa's Critically Endangered bird species: the Wattled Crane, Blue Swallow, Rudd's Lark, Eurasian Bittern and White-winged Flufftail.

Important Bird and Biodiversity Areas (IBAs)

BirdLife International uses agreed-upon scientific criteria to identify sites that are critical to the conservation of global bird diversity. There are over 12 000 IBAs worldwide, and South Africa has 124. BirdLife South Africa is the national implementing partner to BirdLife International in South Africa.

The WWF Nedbank Green Trust is a co-funder of BirdLife South Africa's revision of the National IBA Directory, which contains all the Important Bird and Biodiversity Areas across South Africa. The first directory was published in 1998. The revision will be published in 2015.

For more information about BirdLife South Africa, visit birdlife.org.za.

Left: The endangered Wattled Crane.
Right: Autumn on Verlorenvlei.
Photo by Felicity Strange.

Protecting one of SA's most important estuaries

Between the West Coast villages of Elands Bay and Redelinghuys you will find the Verlorenvlei estuary, which leads out to sea at Elands Bay. Extending 13,5 km in length and 1,4 km across, it is one of the largest natural wetlands along southern Africa's West Coast, and one of the few coastal freshwater lakes in South Africa.

Despite being one of the most important estuarine systems in South Africa, a Ramsar internationally recognised wetland and an Important Bird and Biodiversity Area (IBA), Verlorenvlei does not have any formal protection or statutory control in place. This is set to change as the WWF Nedbank Green Trust is now funding a project to protect this special area.

'It is such an important initiative because estuarine systems in South Africa are severely underprotected. St Lucia in KwaZulu-Natal is one of the few protected estuaries, and we have hundreds around our coastline,' says the Regional Conservation Manager for BirdLife South Africa in the Western Cape, Dale Wright. BirdLife South Africa is one of the WWF Nedbank Green Trust's conservation partners.

Wright is coordinating the WWF Nedbank Green Trust Verlorenvlei Protected Areas Project in partnership with the Wildlife and Environment Society of South Africa (WESSA). The project manager on the ground is Samantha Schröder who is leading the biodiversity stewardship work with landowners bordering the Verlorenvlei estuary and its primary catchment, the Moutonshoek Valley.

The Verlorenvlei estuary supports more than 189 bird species, of which 75 are water birds and many are migrants. 'It is one of 23 IBAs in the Western Cape. Nine of these are estuaries or wetlands and four of these are without any kind of formal protection, including Verlorenvlei,' says Wright.

The Verlorenvlei estuarine system can host more than 20 000 water birds at any one time, but the past 10 to 20 years has seen a decline in numbers. CapeNature has done long-term monitoring here.

'We are using birds as the ecosystem conservation flagship in an integrated catchment approach to estuary protection,' adds Wright.

The importance of vleis, lakes and estuaries for their water storage, water purification and water-release functions cannot be overemphasised. They are also key nursery grounds for a range of fish and bird species. Without healthy estuarine nurseries, freshwater and ocean fish populations can collapse.

'Climate change and adaptation to climate change is another issue we are working with,' continues Wright. 'We have to make sure that we are looking after our water systems, including catchments, estuaries, wetlands, rivers and underground aquifers, to maintain ecosystem functioning.

Ramsar

The Convention on Wetlands, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

Top left: Verlorenvlei and Moutonshoek Protected Areas Project.
Bottom left: Lachenalia species at Verlorenvlei.
Right: Verlorenvlei.

If climate change leads to this area becoming a hotter and drier region, as the climate forecasts predict, then it will become all the more critical for the people, plants and animals that depend on this precious resource.

Dale Wright Regional Conservation Manager for BirdLife South Africa in the Western Cape

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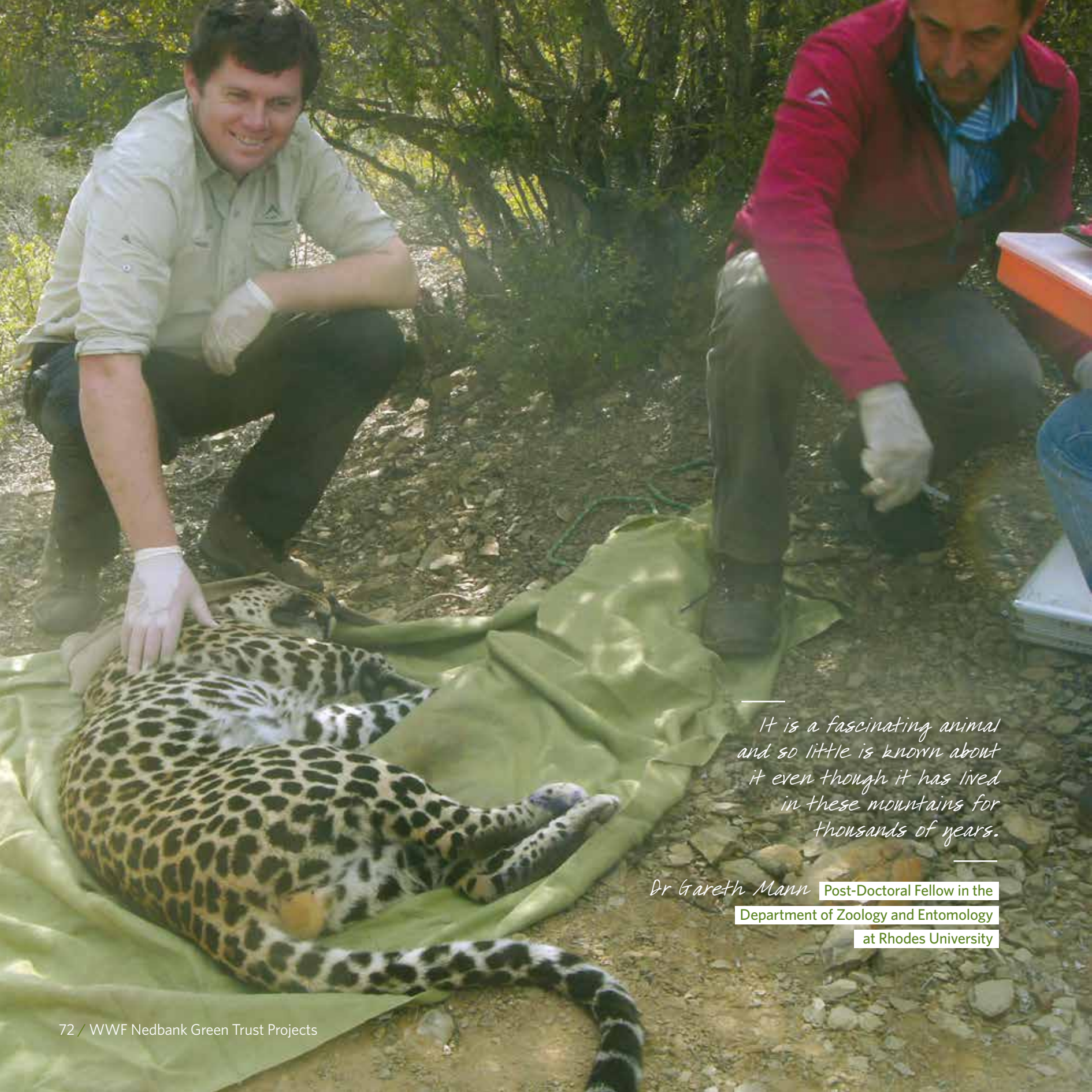
Wildlife for the Future



It is a fascinating animal and so little is known about it even though it has lived in these mountains for thousands of years.

Dr Gareth Mann Post-Doctoral Fellow in the Department of Zoology and Entomology at Rhodes University

Wildlife for the Future

Three years with the Cape Leopard

Twelve thousand photographs over 18 months with only about 170 capturing what the cameras were after. That's what we call elusive. But those snapshots provided fascinating new information about the Cape Leopard of the Little Karoo. The camera trap photos were part of the most detailed study ever undertaken on the Cape Leopard.

They were part of a three-year study conducted by Rhodes University's Dr Gareth Mann, which spanned 3 000 km^2 in the Gouritz area, which includes the Swartberg and Gamkaberg cluster of public nature reserves, together with privately owned land and farms.

It was conducted through the Cape Leopard Trust with support from CapeNature. The WWF Nedbank Green Trust funded 40 out of a total of 70 of the study's camera traps, which were key for the study as the Cape Leopard is highly elusive and rarely seen. The camera traps were set up along routes used by the leopards.

Mann and his team were fortunate to photograph 29 different leopards in the study area, where the population averages at 0,75 leopards per square kilometre. It's one of the lowest population densities in the country, comparable with densities in the Kalahari.

Two findings that surprised Mann during the study is that leopards frequently hunt and eat baboons in the Little Karoo, and that most landowners in the region, including livestock farmers, are highly supportive of Cape Leopard conservation.

Left: Dr Gareth Mann removing a collar from one of the three Cape Leopards he collared for the project. With him is wildlife veterinarian Dr Willem Burger, based in Oudtshoorn.
Right: The Karoo Mountains – the harsh terrain and project area where the Cape Leopard roams.

Top: Adult male Cape Leopard caught on camera.
Bottom: Klipspringer captured on camera during the Cape Leopard Project.

'The prevailing thought is that leopards avoid baboons because they are dangerous, but this does not deter the Little Karoo leopards for whom baboons are a main source of food,' says Mann who collared three male leopards as part of his research.

Regarding the landowners, he says that, apart from the inevitable exception, they were extremely interested in participating in the research. 'When a leopard was caught on camera on someone's farm they often wore it like a badge of honour of good land management,' explains Mann, who went out of his way to meet with and interview landowners and to give awareness-raising talks about the leopards at farmers' meetings.

The average size of stock farms in the area is approximately 3 000 hectares, predominantly game and livestock, including ostrich, sheep and cattle. Farmers experience minimal predation by leopard on ostriches and sheep, which are enclosed in camps in the lower-lying areas.

'The leopards tend to keep to the higher-lying areas, where the cattle roam and where farmers have lost the odd calf, but fortunately these incidents are fairly rare,' says Mann. He says he feels greatly privileged to have spent time on the ground with the Cape Leopard – the only member of the Big Five that managed to survive naturally in the Western Cape.

For more information visit capeleopard.org.za.

Rhinos and rural initiatives

On World Rhino Day 2015, WWF South Africa, the WWF Nedbank Green Trust and the Southern African Wildlife College joined forces to create the Rural Initiative for a Sustainable Environment (RISE), a practical approach to supporting rhino and wildlife conservation.

RISE capacitates communities neighbouring wildlife reserves to benefit from wildlife through the approach known as 'community-based natural resource management' (CBNRM). It empowers people who live near protected areas to manage their own environment, wildlife and land.

Two communities currently engaged in pilot sites for this initiative are adjacent to wildlife reserves in KwaZulu-Natal and on the Mozambique border with Kruger Park.

'RISE is about benefiting communities through wildlife, by improving governance and developing sustainable livelihoods from the natural resources in wildlife reserves,' explains WWF SA Rhino Programme Manager Dr Jo Shaw.

Under RISE, the CBNRM Unit team at the Southern African Wildlife College creates committees to help organise governance in the communities, and structures, and set up bank accounts and methods that allow for income to be received and distributed.

Black Rhino. Photo by Martin Harvey.

When communities feel they are invested in protecting a resource, in this case rhino and other wildlife, then people are far more likely to help protect them.

Dr Jo Shaw WWF SA Rhino Programme Manager

'This approach forms a strong basis for the future of our protected areas as it encourages a culture of community investment in wildlife and natural resources,' says Shaw who is responsible for implementing the five-point strategy that WWF is using to support the protection and conservation of rhino, which includes:

1. Continuing the Black Rhino Range Expansion Programme (BRREP) to boost black rhino population growth rates by relocating founder populations to additional areas where there is a commitment to protect them;
2. Working with people and communities who border wildlife and protected areas to create linkages and benefits;
3. Supporting law enforcement activities with forensic, judicial and information management tools;
4. Recognising that illegal wildlife trade is an international problem that cannot be solved within our borders: and encouraging co-operation between ourselves and other key countries in the illicit supply chain, notably Mozambique; and
5. Working on understanding the demand for rhino horn market, including the consumers in key rhino horn markets, such as Vietnam; and then using this information to develop targeted behaviour change campaigns.

Top left: Dr Jo Shaw, WWF SA Rhino Programme Manager.
Bottom left: Rhino anti-poaching wildlife officer in Mozambique.
Right: Zandlazethu High School learners in KwaZulu-Natal blowing and chanting rhino poaching away.

Over the same period the impact of poaching on our rhino populations has continued to rise. In South Africa, which is home to 82% of Africa's surviving rhino, poaching figures have skyrocketed from 13 animals in 2007 to 1 215.

in 2014. On 30 August 2015, South Africa's Environmental Affairs Minister Edna Molewa announced that 749 rhinos had already been poached in South Africa during 2015.

For more information about WWF-SA's rhino strategy visit:
http://www.wwf.org.za/rhinos.
http://www.wwf.org.za/what_we_do/rhino_programme/.

Blade Witbooi and Katrina Koper who help to manage the Khomani San's commercial game farm Erin.

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South Africa's First People for the Future

25 Years of the WWF Nedbank Green Trust

South Africa's First People for the future

Khomani San elder Isak Kruiper playing the mouth bow.

New era for the Khomani San

The Khomani San's legendary leader Dawid Kruiper, or Oom Dawid as he was known, is hopefully holding veld school on the celestial plains where humans and animals coexist as they once did when the world's first people roamed southern Africa.

Oom Dawid passed away in June 2012 at the age of 76 and was buried in the red earth of his beloved ancestral land, the Kalahari – for which he fought so long to have restituted to his people who can trace their origins to the world's first people.

Those who know him said that, in his last years, Oom Dawid was happiest holding veld school with members of his clan in the Kgalagadi Transfrontier Park. He well understood that times have dramatically changed, but he wanted to ensure that the culture and knowledge of his ancestors were kept alive.

Seated round a fire at night in their rustic camp with plaited grass shelters, he would share the ancient stories of their people. By day he would show them how to identify spoor and medicinal and food plants in the wild. Young and old, all attended the veld schools.

In 1999 approximately 25 000 hectares of the Kgalagadi Transfrontier Park (formerly the Kalahari Gemsbok National Park) were officially returned to the Khomani San as part of their land claim. Despite this, it took 12 long years before they were finally able to freely access the park.

Corruption and marginalisation almost derailed the Khomani San's claim with many illegitimate claimants being granted rights to live on the Khomani San's land.

Oom Dawid

Dawid Kruiper in his later years.

Left: Discussions about tradition and culture at the Khomani San's Imbewu Camp in the Kgalagadi Transfrontier Park. Photo by Richard Gordon.
Right: On the road to the Kgalagadi Transfrontier Park.

To contribute to the resolution of the Khomani San's claim, the WWF Nedbank Green Trust committed funding through ecologists Dr David Grossman and Phillipa Holden who have assisted the Khomani San all these years.

The land outside the park that was successfully returned to the Khomani San spans 36 000 hectares of farmland, including the farms Erin and Witdraai. Members of the Khomani San clan live on Witdraai, many in traditional Bushmen dwellings, while Erin is run as a community-owned, commercial game farm.

Erin (6 000 hectares) is situated in a magnificent part of the Kalahari with rolling dunes and groves of camel thorns. It has a fine spread of indigenous Kalahari game species, including oryx, red hartebeest, springbuck and blue wildebeest. SANParks and Tswalu Kalahari Game Reserve donated approximately 200 head of game to Erin, while the rest was purchased by the community.

With the assistance of various donors, a number of field rangers and game farm assistants have been trained and certified, including Blade Witbooi and Katrina Koper who help manage Erin. Witbooi has also continued Oom Dawid's veld school tradition and has an excellent knowledge of traditional medicinal and food plants.

For more information visit khomanisan.com.


DEMOCRACY
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SUN & WIND
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WWF Nedbank
Green Trust Projects

Faith for the Future

25 Years of the WWF Nedbank Green Trust

Faith for the Future

Where politics divide, the environment unites. Anglican priests, Muslim imams, congregations, youth leaders, and children attending Sunday schools and madrasas, are all focusing on the natural environment and what their communities can do to protect and conserve it.

Top: Revd Rachel Mash at an anti-shale gas mining march in Cape Town.
Bottom: Shaykh Ismail Keraan from the Al-Azhar Mosque, Aspeling Street, Cape Town, helping young children to make their first seed boxes.

Anglican, Muslim and other faith communities unite for conservation

In this groundbreaking project funded by the WWF Nedbank Green Trust, the Anglican Church of Southern Africa and the Claremont Main Road Mosque, representing the Cape Town Muslim community, are partnering with the Southern African Faith Communities' Environment Institute (SAFCEI) to develop faith-based environmental learning materials and leadership programmes for their respective congregations.

'Across all religions we need to be preaching and praying about the environment to convey the message that God made this beautiful world of ours, and we need to be proactive about taking care of it,' says Reverend Dr Rachel Mash, the environmental coordinator of the Anglican Church of Southern Africa, who initiated and motivated the funding proposal for this multi-faith project.

Revd Mash and Mariam Baderoon, a boardmember and environmental justice portfolio holder of the Claremont Main Road Mosque, are developing learning materials and programmes, in collaboration with other interested stakeholders from their religious communities.

'We need to encourage people of all faiths to support environmental conservation campaigns in their communities, such as the campaign calling for accountability in acid mine drainage in Gauteng, the campaign against shale gas fracking in the Karoo and the campaign to save the Princess Vlei in Cape Town from being destroyed by a shopping mall,' explains Revd Mash, formerly a parish priest in Khayelitsha for 10 years, and who currently serves at St Mark's Church in District Six.

Revd Mash says all faith communities have an extremely important role to play in environmental conservation in this time of pandemic environmental degradation and climate change. 'Climate change is a huge threat, but even if you are a climate denialist and you don't believe in climate change, it doesn't change the fact that our planet is in a bad way and we need to change this. In response, we have decided to take a positive approach in this project. We want to inspire people to aspire to a world where we have clean air, clean rivers and a healthy environment.'

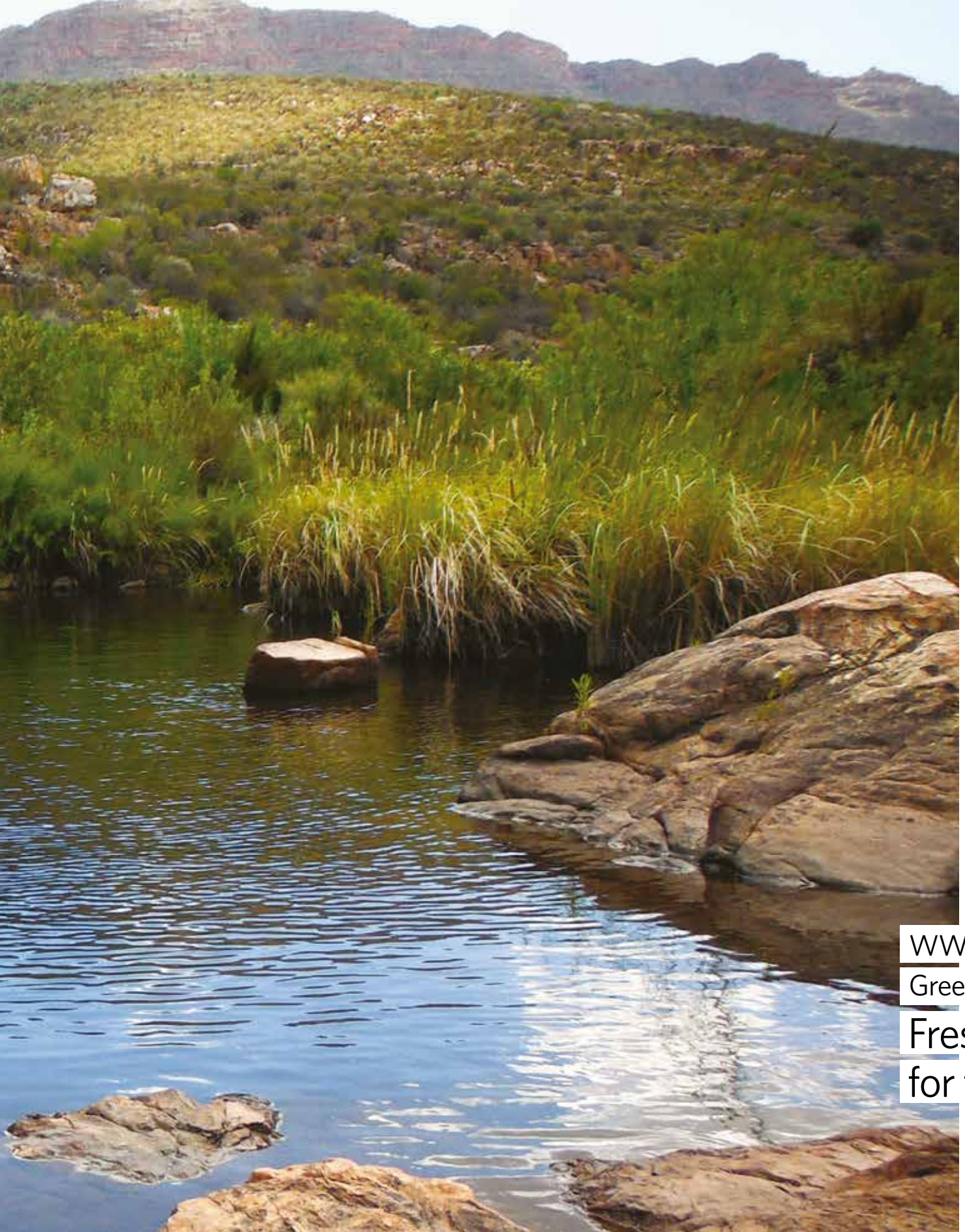
'Environmental justice is part of our mosque's mission and we see it as being an integral part of what it means to be a conscientious Muslim,' adds Baderoon. 'We believe that we need to play an active role in environmental conservation and environmental justice and not just leave it up to environmental experts and public officials.'

Baderoon explains that the lessons and programmes developed will be used in the Muslim community to explore the concept that the Earth is a mosque. 'We will provide ideas, resources and practical advice to teachers, leaders and youth as to how we can honour the ethical principles that connect humans in our collective duty to protect the planet.'

'The key ethical principles we want to convey is the Oneness of God and His creation; to understand what it means to be a steward on Earth and how to make the natural environment central to our faith and lifestyle.'

These principles are shared by the Green Deen Movement – an initiative started by the Muslim Students' Association in Johannesburg that calls on all Muslim youth to come together to conserve the planet.

Rev Dr Rachel Mash and Tumelo Hoohlo, the Diocesan Environmental Coodinator for Lesotho at the Lesotho Environmental Conference in 2014.



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Green Trust Projects

Freshwater Fish for the Future

25 Years of the WWF Nedbank Green Trust

Freshwater Fish for the future

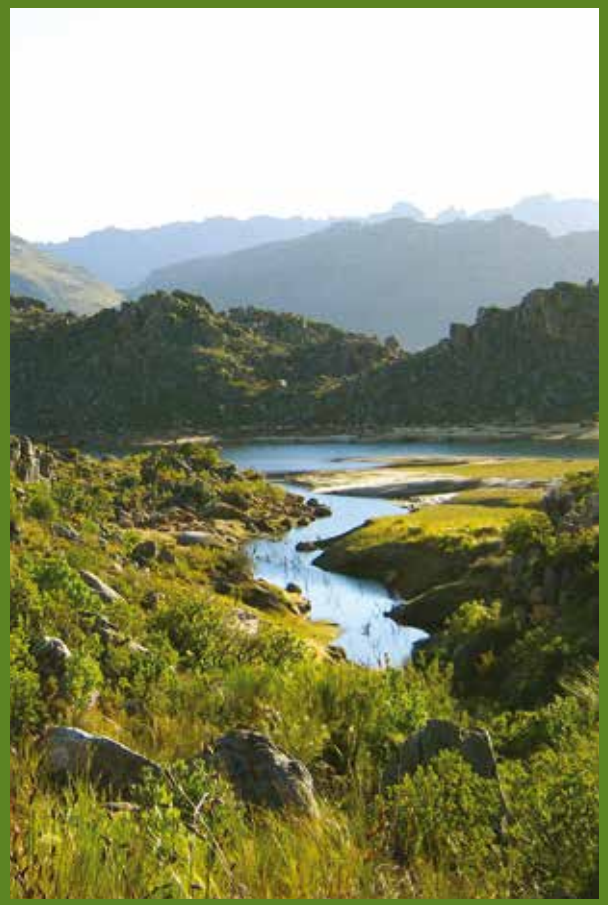
Saving SA's most threatened freshwater fish species

Should you be exploring the mountains between Citrusdal and Ceres, you might chance on some snorkelers looking for two very special fish species in the streams of the Twee River. One is the Twee River redfin (barbus erubescens) – widely regarded as South Africa's most threatened freshwater fish. The other is the Twee River galaxias (galaxias sp). Both are critically endangered freshwater fish species that inhabit the Twee River system.

This region, which includes the Skurweberg and the Groot Winterhoek and Koue Bokkeveld Mountains, is the only known location of these species, whose distribution has been rapidly shrinking as a result of various threats. These include alien vegetation invasion and intensive fruit farming activities, such as water abstraction, habitat degradation and agrochemical or pesticide pollution. Another key threat is the presence of a range of translocated fish species, including the Cape kurper and Clanwilliam yellowfish, and exotics such as the bluegill sunfish and bass.

In April 2014 the WWF Nedbank Green Trust launched a three-year project in partnership with CapeNature in this region to clear the aliens, improve farm-level management, rehabilitate the Twee River system and conserve the redfin and the galaxias. Working for Wetlands has also agreed to collaborate with the project.

The two fish species are key indicators of the overall health of the Twee River system, which WWF-SA has identified as a critical biodiversity area. It is also part of a climate change adaption corridor where WWF-SA is monitoring the effects of climate change on the local plants and animals.



Left: Twee River Redfin. Photo by Riaan van der Walt.
Top right: View of one of the dams within the Twee River catchment. Photo by Theunis Hanekom.
Bottom right: Twee River galaxias.

'I am highly encouraged by the enthusiastic response to this project from the farmers and local communities,' explains the manager of the WWF Nedbank Green Trust project, Zanné Brink. 'At the same time we are collaborating with various other projects and stakeholders, including the Endangered Wildlife Trust's Cape Critical Rivers Project, WWF's Sustainable Fruit Initiative, the Koue Bokkeveld Water User Association and numerous landowners.'

Two research studies are being planned through the Cape Peninsula University of Technology and Stellenbosch University, which will look at toxicology and impacts on the habitats of the Twee River redfin within the project area.

Assisting Brink on the WWF Nedbank Green Trust project is Groen Sebenza intern Tumisho Ngubela. Groen Sebenza is a national job creation initiative in the conservation sector for young South Africans from previously disadvantaged backgrounds, spearheaded by the South African National Biodiversity Institute (SANBI) and the Development Bank of South Africa.

Brink and Ngubela regularly snorkel the Twee River streams, looking for the two special fish species. They also place underwater cameras in the streams to photograph and monitor the fish.

In addition to this, they are coordinating the clearing of pine, black wattle and eucalyptus from the slopes of the Skurfberg, all the way down to the riverine areas within the project area, which is a valuable job creation project for the Citrusdal community.

'We are also working closely with the farmers on private land to help them with alien-vegetation removal, which increases the clean-water yield. Together with the WWF Sustainable Fruit Initiative, we are assisting farmers with better farming practices to help conserve water and the natural vegetation on their farms as part of a healthy ecosystem.'

And they are advising farmers about agrochemicals and contaminants, and helping them to develop more environmentally compatible practices.

To address the problem of exotic and translocated fish, which were brought in by fishermen or escaped from farmers' dams, the project is working with the South African National Biodiversity Institute (SANBI) and CapeNature's Technical Advisory Group. A weir is to be built to prevent these alien fish from swimming upstream and accessing the redfin's and the galaxias' home streams. This will assist the Twee River redfin to expand its range.

Top left: One of the two clearing teams.
Bottom left: A giant Protea – indigenous flora in the Twee River environment. Photo by Theunis Hanekom.
Right: Project Manager Zanné Brink working to stack pines already cut.

We're pursuing a thoroughly holistic approach and it is inspiring to undertake this project with a fantastic team of people.

Zanne Brink Manager of the WWF Nedbank Green Trust project

Photo by Slingshot Media

WWF Nedbank
Green Trust Projects

Flowers for the Future

Flowers for the future

We need to look to the earth beneath our feet to see the riches of our land. This could not be more evident than in the smallest, richest floral kingdom in the world, the Cape Floristic Region (CFR), also known as the Cape Floral Kingdom.

Cape flowers for pleasure, profit, employment and the green economy

The CFR is home to over 9 000 indigenous plant species, broadly known as fynbos, in an area that covers 90 000 km, mainly in the Western Cape, but also in parts of the Eastern Cape, as far as Port Elizabeth. Of the 9 000 species, 6 000 are endemic to the CFR.

Recognising this national asset, the Flower Valley Conservation Trust, an independent non-governmental organisation (NGO) that partners with land users, government and conservation organisations, launched a sustainable fynbos-harvesting programme in 2003 on the Agulhas Plain in the southernmost region of the CFR.

The Agulhas Plain spans 270 000 hectares of privately and state-owned land between Hermanus and the De Hoop Nature Reserve in the Western Cape. The programme has flourished here for over 10 years, with best-practice principles currently demonstrated on 60 000 hectares on the plain. The programme shows that it is possible to sustainably harvest fynbos from this biodiversity hotspot, in a commercially viable way. At the same time this creates businesses and jobs for people living in the surrounding rural communities.

The programme is now being rolled out across the entire CFR where harvesting in the wild occurs. To contribute to this, the WWF Nedbank Green Trust and the European Union are co-funding support to introduce the programme to fynbos-harvesting areas outside the Agulhas Plain: the Boland, the West Coast region and around Riversdale.

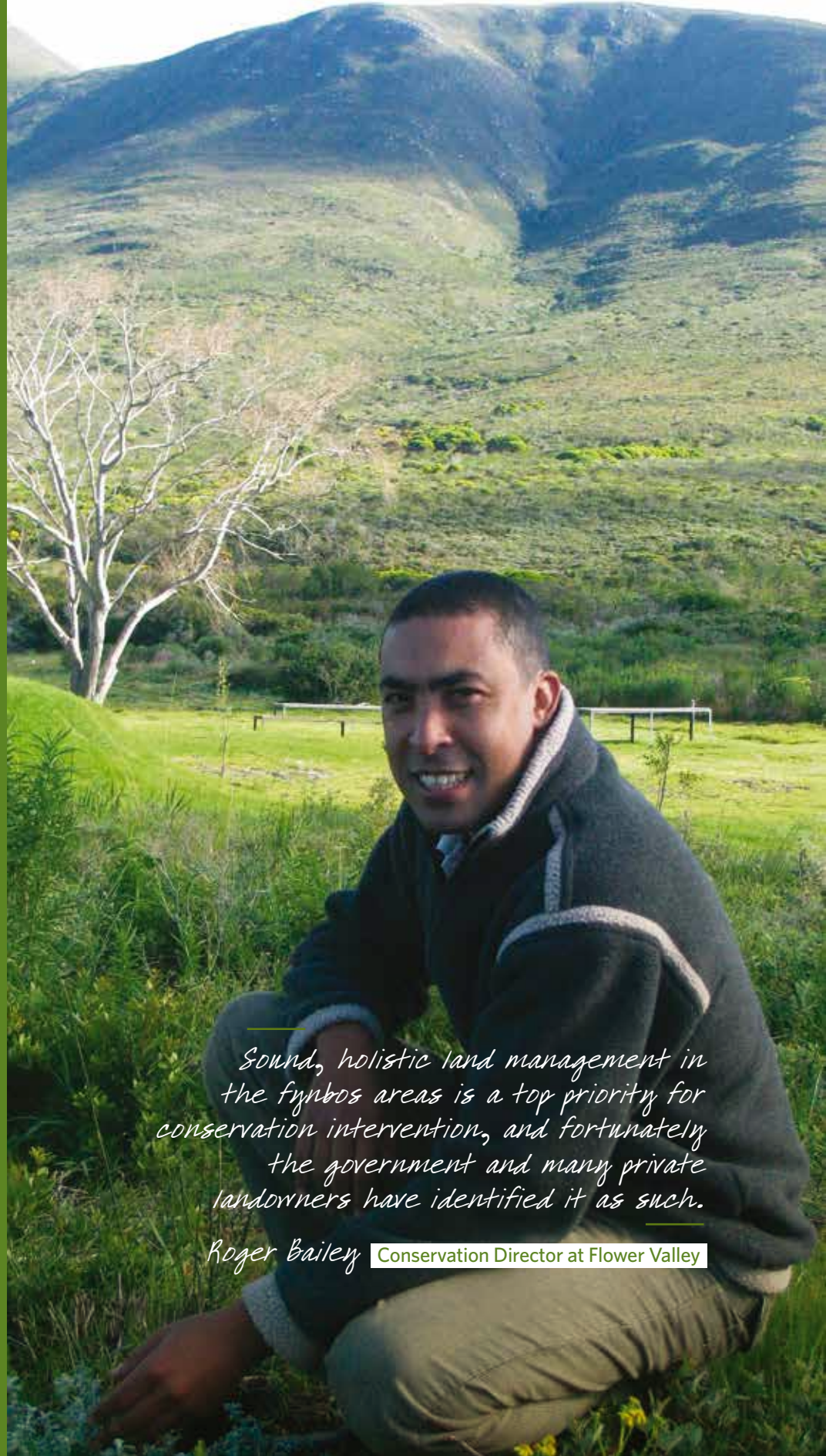
Left: Everlasting species on Flower Valley Farm (*Syncarpha vestita*). Photo by Heather D'Alton.
Top right: Protea compacta. Photo by Kobus Tollig Photography.
Bottom right: *Erica reggia* may not be picked due to its vulnerable status. Photo by Heather D'Alton.

'The programme is voluntary and it is all about promoting the green economy. It increases the number of biodiversity stewards on private land and it fulfils the social responsibility need of decent green jobs,' says Flower Valley's conservation director, Roger Bailey, who has been with the programme from the outset.

Bailey's love of fynbos developed when he was a child growing up in Bot River in the Overberg where his family would hike in the mountains. From a young age he knew he wanted to work in the conservation field. He initially worked as a volunteer in the Bot River area, at the botanical gardens in Villiersdorp in the Boland, the Kogelberg Nature Reserve and for CapeNature.

'Fortunately for me, during this time, there was a PhD student from the United States doing a study on the spread of Argentine ants in the fynbos in the Kogelberg Nature Reserve and I was employed as her research assistant,' says Bailey.

From there he was employed as a task assessor by the South African National Biodiversity Institute, working in the Agulhas area shortly before the Agulhas National Park was proclaimed, graduating to senior project manager in the Working for Water Programme in the park. He was responsible for overseeing the alien-clearing project. His next appointment was with the Flower Valley Conservation Trust where he has been ever since.



Sound, holistic land management in the fynbos areas is a top priority for conservation intervention, and fortunately the government and many private landowners have identified it as such.

Roger Bailey Conservation Director at Flower Valley

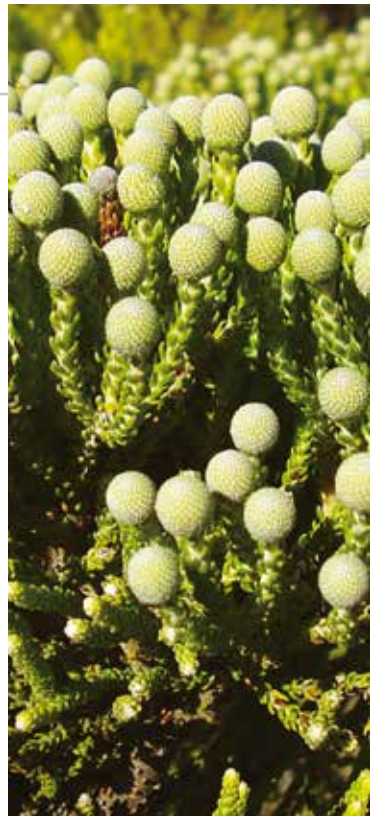
'If we look at the Agulhas Plain, for example, there are close to 2 500 plant species of which approximately 100 are endemic, at least 110 are in the Red Data Book and about 40 are unique vegetation types. Around 150 species from this region are harvested for the local and international flower trade. It is extremely important that we promote holistic land management practices. For Flower Valley, that includes the programme's code of best practice for wild harvesters, a vulnerability index to guide species choice for bouquets, and training and skills development for harvesters.'

Part of the work being undertaken by the Conservation Director at Flower Valley, Roger Bailey, is to coordinate the Agulhas Biodiversity Initiative's (ABI) alien-clearing project. This is a landscape initiative operating across the Overberg to clear mainly pine, rooikrans, port jackson, myrtle and hakea.

The Sustainable Harvesting Programme participates in ongoing research on fynbos, aimed at gaining a better understanding of how different species react to fynbos harvesting and other land-related activities. For example, recent research found that resprouters such as silver brunia (a species picked for the market) have a high mortality rate when 100% harvesting is allowed. It has been recommended that these species be harvested at between 25% and 50%.

'Through ongoing research, we can better understand many of the threats to fynbos – such as invasive alien plants and poor land management,' says Bailey. 'This allows us to work positively with various stakeholders to boost fynbos sustainability, and to improve the sustainable livelihoods within the project area.'

For more information visit flowervalley.org.za.



Top: Silver Brunia.
Bottom: Harvester Nokuzola Tshontshi carrying Metalasia muricata. Photo by Slingshot Media.

25 Years of the WWF Nedbank Green Trust

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25 Years of foresight

25 Years of the WWF Nedbank Green Trust

From the early days of conserving the Kalahari lions and sea turtles to pioneering research in climate change, water conservation and environmental leadership, the WWF Nedbank Green Trust has been there, path finding and forging the way.

Founded in 1990 at a time when few companies were talking Green, the WWF Nedbank Green Trust saw the future. It recognised that the survival of our planet depends on the coming together of governments, businesses, organisations and all people.

With the support of our Nedbank Green Affinity clients, Nedbank has donated more than R185 million to the WWF Nedbank Green Trust over the past 25 years. This has been used to fund over 200 outstanding projects.

In 2015 the WWF Nedbank Green Trust is proud to celebrate its 25th anniversary with all the people of South Africa and the world.

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