

# Environment Quarterly

EzemVelo Ngenyanga Ntathu • Mbango wa kotara • Mupo nga Kotara

**Focus on  
Environmental Programmes**  
Progress in the fight  
against rhino poaching



**environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA



# 2018 environment CALENDAR



## January

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30	31					

2 February  
22 March  
23 March  
26 March  
22 April  
9 May  
22 May  
5 June  
8 June

World Wetlands Day  
World Water Day  
World Meteorological Day  
Earth Hour  
Earth Day  
World Migratory Bird Day  
International Biodiversity Day  
World Environment Day  
World Oceans' Day

17 June  
18 July  
31 July  
1 September  
18 - 22 September  
16 September  
22 September  
21 November

World Day to Combat Desertification  
Nelson Mandela Day  
World Ranger Day  
National Harbour Day  
National Parks Week  
World Ozone Day  
World Rhino Day  
World Fisheries Day



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# Editorial:

## Protecting SA's biodiversity and equitably sharing the benefits



### Dear Valued Stakeholder

South Africa begins this year under the new leadership of President Cyril Ramaphosa, who highlighted the vital role of tourism in his first State of the Nation Address in February. South Africa would not doubt struggle to attract tourists, as well as the investment and job creation this industry brings, without our rich heritage of biodiversity.

South Africa is a mega-biodiverse country which is endowed with a number of plant and animal species found nowhere else on Earth. The role of the environment sector, as reflected in the Constitution and the department's mandate, is to ensure that our environment is a healthy one in which our people can live and

prosper, in the present and future generations. We are also tasked with ensuring that benefits derived from our environment are shared in an equitable manner, for the benefit of all. This brings us to the theme of our current edition.

Firstly, we bring you progress in the fight against wildlife crime, which the department is tackling in collaboration with partners in government, the private sector and the international conservation community. Minister Edna Molewa recently updated the nation with regard to the impact of strides made in the fight against rhino poaching.

On World Wildlife Day the department took the interventions to Africa's busiest port of entry, the OR Tambo International Airport. The public were educated about the illegal wildlife trade and the media were given a tour of the sophisticated procedures and technological resources which are used to detect and prevent the illegal export of our precious natural resources. This event was led by the Deputy Director-General Legal, Authorisations and Compliance Inspectorate Ishaam Abader and Chief Director Frances Craigie.

Secondly, with regard to the equitable distribution of benefits derived from the environment, the department successfully hosted the Third Biodiversity Economy Indaba, under the theme Entrepreneurs Meet

Investors. Minister Molewa led this event, where farmers, communities, processors and others in South Africa's wildlife and bio-prospecting sectors were connected with potential investors who could grow their businesses, including beyond our shores. Such forums are vital, because research has shown that while South Africa grows plants such as Aloe Ferox and Rooibos (*Aspalathus linearis*) locally, we export the raw products overseas and lose out on Billions of Rands in revenue, by not doing enough of the processing and beneficiation locally.

The products created from our indigenous plants are then sold internationally, including back to South Africans. This situation cannot be allowed to continue while so many of our farming communities are impoverished, but have the indigenous knowledge to create the much desired cosmetics and teas amongst others.

We hope you enjoy and learn from these articles, our Regulars and more in this informative edition. The Editorial team and I would like to extend thanks to all of our contributors and encourage article submissions from stakeholders in the environment sector.

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Lavinia Mahlangu-Engelbrecht

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## bilateral discussions on various environmental issues

The Minister of Environmental Affairs, Mrs Edna Molewa and the Danish Minister of Development Cooperation, Ms Ulla Tørnæs had bilateral discussions on various environmental issues on 01 March 2018. The discussions were paving a way for a Memorandum of Agreement (MoU) that would cover matters such as biodiversity and conservation; transition to green economy; chemicals and waste management; climate change mitigation and circular economy between South African and Denmark.

Image by Ernest Mulibana



## Illegal abalone seized in Cape Town

The Department of Environmental Affairs' (DEA) Oceans and Coast Enforcement team, working together with officials from different departments, seized 69 bags of illegal abalone worth over R1 million during a joint search operation initiative called "Bark & Bite" conducted in Cape Town, on 01-02 March 2018.

Image by Tshego Letshwiti

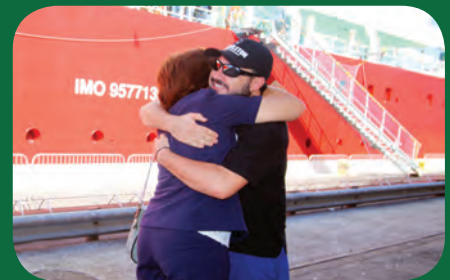
## SA Agulhas II returns from cold Antarctica

The SA Agulhas II was welcomed with great excitement as she arrived just in time for Valentine's Day, from Antarctica on 13 February 2018, at the East Pier Quay, in Cape Town. The vessel arrived back from its sixth logistical voyage to Antarctica. Aboard the ship was the SANAE 56 team, as well as host of researchers who were collecting data from deployed and recovered gliders which were at sea for 13 months.

Various scientific research projects were undertaken to further understand the distribution of our marine resources whereby the DEA team deployed Geolocators on snow Petrels and Adélie Penguins. "The data collected from the island, will not only assist us in enhancing our knowledge on the foraging patterns of two bird species, but will also enable us to understand how land based systems are linked to the marine ecosystem thus resulting in sound conservation management decision being taken around the Antarctica regions.

Friends and family displayed a colourful array of welcoming boards and balloons, as a way to celebrate their loved ones' return.

Images by Asithandile Sthongana



## Minister inaugurates the World's First Oxygen Production Plant

The Minister of Environmental Affairs, Dr Edna Molewa together with SASOL and Air Liquide inaugurated the World's First Oxygen Production Plant worth R2.9 billion on 26 March 2018, in Secunda Mpumalanga.

The project is the largest investment of its nature by Air Liquide outside Europe. The company designed and built the oxygen unit, and will also operate it. The unit is the largest Air Separation Unit (ASU) ever built.

Image by Itumeleng Motsepe

# DEA raises awareness about wildlife crime

By Veronica Mahlaba



**Above:** Biodiversity Specialist Production, Ms Malebo Maloka creating awareness on goods that require permits for the public to buy them at OR Tambo Airport.



**Above:** Deputy Director-General: LACE, Advocate Ishaam Abedar talking about different initiatives DEA has undertaken to combat wildlife crime in South Africa.



**Above:** Environmental Management Inspector, Mr Owen Madali inspecting cargo to ensure that the permits are valid.

**W**orld Wildlife Day was marked with a Morning Live broadcast at OR Tambo International Airport on 03 March 2018 with the theme: **Big cats: predators under threat.** The day was used to raise awareness about steps being taken to combat wildlife crime in general, and to educate the public on the actions they are able to take to assist in ensuring species are not threatened by the illegal trade

Through the implementation of the Integrated Strategic Management Approach adopted by Cabinet in 2014 to address rhino poaching, the Department of Environmental Affairs' Environmental Management Inspectorate (Green Scorpions) is working closely with the South African Police Service (SAPS), South African Revenue Service (SARS) customs and excise officials and security at points of entry and exit to ensure that the smuggling of wildlife and wildlife products is curtailed.

Deputy Director-General: Legal Authorisations Compliance and Enforcement, Advocate Ishaam Abedar stated that the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES) states that big cats, which are among the most widely recognised

and admired animals, are facing many and varied threats worldwide. These are caused mostly by human activities.

A range of measures have been introduced in South Africa to ensure that our cat populations are conserved and properly managed. This includes the implementation of a Biodiversity Management Plan for the African Lion. The Scientific Authority of South Africa conducted a Non-Detriment Finding (NDF) as required by CITES. The final NDF was published for implementation on 23 January 2018," explained Advocate Abedar.

SARS Chief Officer: Customs and Excise, Mr Teboho Mokoena explained that the SARS Customs and Excise Operations and the Detector Dog Unit contribute to the objective and key outcomes of the National Integrated Strategy to Combat Wildlife Trafficking (NISCWT). The Customs division has the capacity to detect rhino horn, ivory, wet and dry abalone, crayfish, lion bones and now also pangolin scales hidden in vehicles, vessels, aircraft, containers, cargo, mail, rail, luggage and buildings.

"The deployment of customs officers and detector dogs in and around national parks such as the Kruger National Park, Umfolozi Game Park

and non-designated ports of exit and entry to prevent wildlife trafficking is considered to be in national interest. The detector dogs and handlers play a very important support role to other state departments such as SA Police Service, SA National Parks and the Department of Environmental Affairs in the fight against cross border smuggling of especially rhino horn and ivory," said Mr Mokoena.

Mr Mokoena further emphasized that training of Customs and Excise officers in the identification and handling of endangered species and collaboration during the past few years with the Department of Environmental Affairs or Endangered Wildlife Trust (EWT) has contributed to the successful detection and prosecution of wildlife cases.

Advocate Abedar said World Wildlife Day is also a day on which we have an opportunity to thank those law enforcement officials, conservationists and ordinary citizens for the work they do to ensure our wildlife is protected for future generations. "Wildlife crime not only threatens natural resources, but also the economy through financial burdens and the loss of economic and development opportunities."



## About the contributor: Veronica Mahlaba

Veronica Mahlaba is the Senior Communication Officer: Editorial Services at the national Department of Environmental Affairs, serving under the Communications Chief Directorate. Ms Mahlaba has experience as a Lecturer in the Media Studies Department at a private college. She has worked as writer for a metropolitan municipality and she is a keen photographer.

# Wildlife Crime is serious crime

**W**orld Wildlife Day was first proclaimed in 2013 at the 68th session of the United National General Assembly (UNGA), and aims to raise awareness of the world's wild animals and plants. Among the actions required to advance the 2030 Agenda and Sustainable Development Goals is to raise public awareness on the links between wildlife conservation, rural livelihoods and sustainable development, as well as the role of governance and public-private partnerships.

## 1. What is the definition of Wildlife Trafficking?

Wildlife trafficking includes a range of criminal activities that form part of the entire illicit value chain of transnational wildlife organised crime, such as the illegal killing and/or harvesting, smuggling and illegal trade of fauna and flora which takes place in an organised manner. Furthermore, wildlife trafficking includes all forms of corruption, money laundering and marketing of the illicit goods linked to this phenomenon.



## 2. How serious is wildlife crime?

Once an emerging threat, wildlife and forest crime today has transformed into one of the largest transnational organized criminal activities alongside drug trafficking, arms, and trafficking in human beings. With a value globally of between \$7 billion and \$23 billion each year, illegal wildlife trafficking is the fourth most lucrative global crime after drugs, humans and arms. Criminal groups are using the same routes and techniques for wildlife trafficking as for smuggling of other illicit commodities, exploiting gaps in national law enforcement and criminal justice systems. The billions of dollars generated by this illegal business are being used to further nefarious ends. These crimes are also closely interlinked with money-laundering, corruption, murder and extreme violence. Wildlife and forest crime threatens biodiversity and endangered species, the livelihood of people, and severely impacts national security, social and economic development.



South Africa's Constitution places an obligation on the government to ensure the protection of the environment, and to take reasonable measures to secure the ecological sustainable development and use of natural resources while promoting justifiable economic and social development. The Department of Environmental Affairs (DEA) is the lead department in this regard.

The legislative framework for the Environment in South Africa includes the National Environmental Management Act (NEMA) which among others gives effect to the mandate and functions of the Environmental Management Inspectors or "Green Scorpions". Under NEMA we have the Specific Environmental Management Acts (SEMA's) which include the National Environmental Management: Biodiversity Act 10 of 2004 known as NEMBA. NEMBA has a number of Regulations namely the Threatened or Protected Species (ToPS) Regulations which regulate restricted activities involving species listed as threatened or protected, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Regulations, Alien and Invasive Species Regulations and Bio-prospecting, Access and Benefit Sharing Regulations.



The Department offers a basic and advanced training programme for Environmental Management Inspectors or EMI's, including the recent round of training for 1273 field rangers of Grade 5 EMIs that focused on the key areas of arrest, search and seizure, pointing out and the collection of evidence. In addition, the Department has conducted awareness-raising sessions on illegal wildlife trade for 2835 officials at all border posts for border and South African Defence Force officials.

When the illegal killing of rhinoceros and the subsequent illegal trade in rhino horn started increasing in South Africa in 2008, the DEA initiated the development of the National Strategy for the Safety and Security of Rhinoceros Populations and horn stocks in South Africa. The implementation of this strategy resulted in the illegal killing of rhinoceros being elevated to a national priority crime through the SAPS-led National Security and Joint Operational Structure (NatJoints) with a Priority Committee focused on Wildlife Crime. This structure is responsible to ensure that all provincial structures are coordinated, collaborated and functional in the fight against wildlife crimes. The Security Cluster, involving all departments involved in the Security of the country as well as other relevant departments, participates in this Committee.

In August 2014, Cabinet introduced additional strategic interventions for the management of rhinoceros in South Africa in the form of the Integrated Strategic Management Approach for Rhinoceros aimed at reducing the threat to rhinos and the biological management of the species.





These interventions include, among others, the following:

- Compulsory interventions directed at bolstering existing interventions such as:
  - strengthening and persisting with pro-active anti-poaching operations;
  - continuous joint operations with key neighbouring countries;
  - improved intelligence gathering and analysis capability;
  - improving general protection in parks and provincial reserves where rhino are present, with the help of relevant technology; and
  - introduction of responsive legislation and policy amendments to address rhino poaching.
- Long-term sustainability measures to ensure the future survival of this key species, including:

the creation of economic alternatives for communities taking into account the government's sustainable utilisation policy;

- creating incentives to promote / facilitate rhino ownership; and
  - the consolidation of rhino populations across different land-users in South Africa, including national, provincial, private and communal land.
- Interventions on international collaboration to further strengthen efforts to address not only rhino poaching, but illegal wildlife trade in general. It is internationally acknowledged that illegal wildlife trade results in devastating impacts on species, ecosystems, sustainable livelihoods, economies, and national and regional security. Collaboration between range, transit and consumer States of rhinoceros is therefore essential to address this challenge effectively. Measures to ensure more effective co-operation with key identified countries such as Mozambique, Vietnam and Czech Republic were therefore accelerated.



### 3: What is the most smuggled species from and through (in transit) South Africa?

The most smuggled species from and through South Africa currently are abalone, rhino horn and ivory.



### 4: Why is wildlife smuggled?

Traffickers are slaughtering some of the world's most beloved endangered or threatened animals for their body parts — including elephant tusks, rhino horn, tiger penises and bear gall bladders — to supply the booming black market in souvenirs, trophies and traditional medicine. Other animals are shot by people to meet the burgeoning demand for "bushmeat", particularly in countries in central and east Africa. In addition, thousands of other animals across the globe, including exotic birds, reptiles and rare monkeys, are trapped to meet the growing demand and lucrative black market for exotic pets and the specialist hobbyist/obsessive collectors.

### 5: How is wildlife smuggled?

The modus operandi for smuggling of wildlife differ from person to person and from product to product. Products can be carried by a person in a suitcase, on the person him/herself or in containers by air or sea.



### 6: As a responsible person, how do I avoid being accused of wildlife crime?

Ensure that you buy wildlife products from reputable shops where the sales personnel can provide you with accurate advice as to whether permits are needed or not. In addition, you should also insist on invoices for the products you are buying. Ask whether the shop is registered under NEMBA to sell ToPS listed permits and ask to see a copy of the registration. When you apply for a permit, the provincial conservation authority will ask you for proof of purchase to ensure that you obtained the product legally. Declare these products upon arrival in your country of destination and show the permits.

#### Do I need a permit to export the porcupine quill lamp?

A permit under NEMBA is not needed as the species is not listed under ToPS or CITES. However, please note that a permit from the provincial conservation authority from the province where the porcupine quills originate might be needed.

#### Do I need a permit to export an elephant or buffalo skin handbag or zebra or springbok skin I bought while on holiday in SA?

A person needs a ToPS permit to buy and export an elephant skin handbag.





Buffalo, Burchell Zebra and Springbok are not listed on ToPS or CITES and a permit under NEMBA (including the CITES Regulations) is not needed. Please note that a permit from the provincial conservation authority from the province where the products originate might however be needed and advice should be requested in this regard.

### How do I obtain a permit and what are the costs involved?

Permits for NEMBA listed species and provincial permits can be obtained from the provincial conservation authority in the province where the products were purchased. For certain species you can obtain a TopS or CITES permit from the shop where the products were purchased, however, you should verify that they are registered to do so.

### 7: Do I need a permit to export wildlife products I purchased in another country, but that is in my luggage as a transit passenger?

If the products bought are from CITES listed species (which regulates international trade), you will need a CITES export or re-export permit from the country where you bought the product and you might also require a CITES import permit from the country of destination depending on the Appendix of the species in question. Please note some countries, like South Africa, has stricter domestic measures with regard to CITES permits and import, export and re-export permits are needed for Appendix I, II and III specimens. If you are in transit and you have the necessary CITES export/re-export and/or import permits you do not need any additional permits from South Africa.

### 8. How long has the EMI undertaken their duties at ORTIA?

On the 1st April 2015 the department deployed Environmental Management Inspectors (EMIs) (Green Scorpions) at OR Tambo International Airport (ORTIA). The main function of the EMIs deployed at these ports is to ensure compliance with and to undertake enforcement in relation to the National Environmental Management: Biodiversity Act (NEMBA) and its Regulations, including those related to the Convention on International Trade on Endangered Species (CITES), Threatened and Protected Species (TOPS) as well as Alien and Invasive Species (AIS).

### 9. What does the work of the EMI inspectors deployed at ORTIA entail?

EMIs deployed at ORTIA inspect and endorse permits in respect of both imports and exports – the volume of consignments are highlighted in the response to 10 below. Some of the highlights of these consignments include the following:

- Exportation of 7 live lions to Rwanda donated by South Africa. The lions were re-introduced into Akagera National Park. Lions were wiped out in Rwanda in the years after the bloody genocide and civil war in 1993 and 1994.
- Rhino Exports
  - The office endorsed the shipment of 18 Rhinoceros destined to Rwanda On the 01 /08 May 2017
  - The office endorsed the shipment of 18 Rhinoceros destined to Botswana on the 15 September 2017
  - The office endorsed the shipment of 03 Cheetahs to Malawi
- Tigers export

### 10. How many species are exported/imported via ORTIA on monthly basis?

+/- 300 legal wildlife-related consignments are exported/imported on a monthly basis at ORTIA. During 2017 approximately 4200 CITES were endorsed.

#### Import permits

On average, the office examines 86 CITES import permits per month and inspects these consignments.

#### Live exports

On average, the office examines 870 individual live animals and/or birds in the different consignments per month.

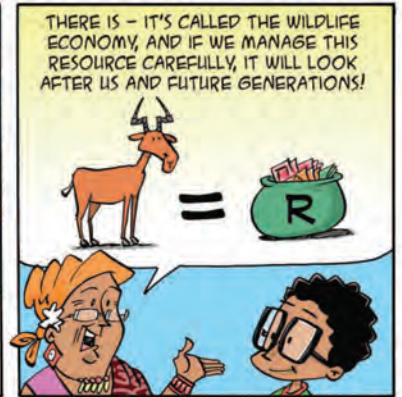
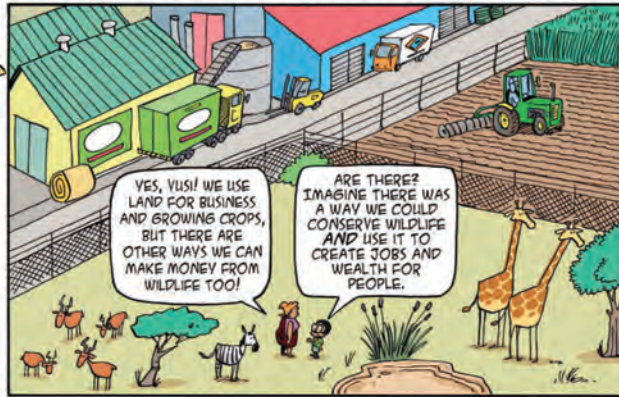
The office endorses a large number of permits related to African Grey Parrots which are exported almost every week to different destinations. Approximately 1000 live birds per month.





# THE WILDLIFE ECONOMY

THERE'S WEALTH IN WILDLIFE!



SOUTH AFRICA HAS AMAZING AND UNIQUE WILDLIFE. THE WILDLIFE ECONOMY IS WHERE THESE WILDLIFE RESOURCES ARE USED TO BENEFIT THE PEOPLE OF OUR COUNTRY.

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# Third Biodiversity Economy Indaba

By Veronica Mahlaba



**Above:** Minister Molewa at the Setsong exhibition stand learning about their organic tea range.



**Above:** Minister Edna Molewa and Minister of Small Business Development, Ms Lindiwe Zulu arriving at the East London International Convention Centre to officially open the 3rd BEI.

The Department of Environmental Affairs (DEA) held its 3rd Biodiversity Economy Indaba (BEI) at the International Convention Centre in East London, Eastern Cape on 08-10 March 2018. The theme of the indaba was **Entrepreneurs meets investors, for a thriving and inclusive biodiversity economy.**

The Indaba brings together multiple and diverse stakeholders in the biodiversity economy, including the hunting and game farm sectors and the bioprospecting, natural products and biotrade industries. Over 800 delegates attended the BEI. A platform was created by the DEA for small, medium and micro enterprises to meet potential investors at the indaba. They received an opportunity to pitch their business plans and also to network with the investors.

Officially opening the 3rd BEI, Minister Edna Molewa stated that South Africa is endowed by the richness in biological resources remains one of the attractions for herbal tea, essential oils, in cosmetics and pharmaceutical industries.

"The beneficiation of products containing Aloe, rooibos, honey bush, pelargonium is mainly done in other countries through exports of raw materials and such at the expense of the many jobs that must be created here in our country. Our products containing indigenous biodiversity

are competing in national and international markets with other biological resources that have similar properties."

She further said the bioprospecting and bio-trade activities have supported local livelihoods through sustainable utilisation of indigenous biological resources as informed by the associated local traditional knowledge. Since then, we have seen a steady growth of the bioprospecting industry in the country driven by the increase in the demand of indigenous plants by various industries.

Minister Molewa also explained that the platform created for enterprises to meet investors is done as part of DEA's contribution to the broader transformation agenda that underpins the resolve for a radical socio-economic transformation.

"I would like to acknowledge the growing co-operation between the environmental sector in the area of enterprise development through support from the Department of Small Business Development. It is through our partnerships that we can ensure a meaningful support to entrants in biodiversity economy activities," said Minister Molewa.

National Co-ordinator for Traditional Healers Organisation, Ms Phephisile Maseko who is also a bio-trader said her major highlight was the

bringing together of investors and traders. "Giving start-up businesses an opportunity to exhibit to attract investors was great. I was able to go there prepared and was given a chance to pitch to investors. I loved the variety of speakers that were brought on board and the topics that were discussed, it was very informative. The segment as well of the journeys travelled by other businesses to their success was stimulating and gave us the motivation that you are not alone on this road.

"However I would love the DEA to give traditional healers a slot as we are in boitrade as well. We can be featured in different sectors as we play a key role in many of the industries that were there. We would also like to hear more about the direct funding that DEA provides for us boitraders and the process of how to get it.

The 3rd BEI ended with pledges by stakeholders in the wildlife, Bioprospecting or bio-trade and eco-tourism sectors to ensure greater inclusivity and transformation. On the last day there was Biodiversity Street Parade, attended by more than 500 school children along the Esplanade in East London. The parade was designed to raise awareness about South Africa's genetic resources and how they should be utilised on a sustainable basis.



# What is Biodiversity?

## Come with us on a journey

**F**rom the hot arid deserts of the Sahara, through the lush green rainforests of the Amazon, to the ocean depths and bright corals, our natural world is a marvel of different landscapes, materials, colours and textures.

The land, air and seas of our planet are home to the tiniest insects and the largest animals, which make up a rich tapestry of interconnecting and interdependent forces. This is life, this is biodiversity.

Biodiversity found on Earth today consists of many millions of distinct biological species, the product of four billion years of evolution. However, the word "Biodiversity" is relatively new, and is thought to have first been coined as a contraction of the term "biological diversity" in 1985 and then popularised by a of authors.

Biodiversity is the variety of life on Earth, it includes all organisms, species, and populations; the genetic variation among these; and their complex assemblages of communities and ecosystems.

It also refers to the interrelatedness of genes, species, and ecosystems and in turn, their interactions with the environment.

Three levels of biodiversity are commonly discussed — genetic, species and ecosystem diversity.

**1. Genetic diversity** is all the different genes contained in all the living species, including individual plants, animals, fungi, and microorganisms.

**2. Species diversity** is all the different species, as well as the differences within and between different species.

**3. Ecosystem diversity** is all the different habitats, biological

communities and ecological processes, as well as variation within individual ecosystems.

### What are the main causes of biodiversity loss?

There are many threats to our natural world, which include:

#### Habitat loss and destruction

This is one of the greatest threats to biodiversity.

Habitat loss is directly linked to human induced pressures on land.

#### Invasive alien species

The introduction of exotic species that replace local and native species is cited as the second largest cause of biodiversity loss. Alien invasive species replace, and often result in the extinction of native species. The annual economic damage caused by invasive plant and animal species is estimated to be in the region of US\$ 1.4 trillion.

#### Over-exploitation

Over-hunting, over-fishing or over-collecting of a species can quickly lead to its decline. Changing consumption patterns of humans is often cited as the key reason for this unsustainable exploitation of natural resources.

#### Alterations in ecosystem composition

Assemblages of species and their interactions with their ecosystems is critical for not only saving the species, but also for their successful future evolution. In the event of alterations, either within species groups, or within the environment, entire ecosystems can begin to change. Alterations to ecosystems are a critical factor contributing to species and habitat loss.

#### Global climate change

Both climate variability and climate change cause biodiversity loss. Species and populations may be lost permanently, if they are not provided with enough time to adapt to changing climatic conditions.

#### Pollution and contamination

Biological systems respond slowly to changes in their surrounding environment. Pollution and contamination cause irreversible damage to species.

### What is happening?

Fast isn't always good. Species are becoming extinct at the fastest rate known in geological history, and most of these extinctions are tied to human activity.

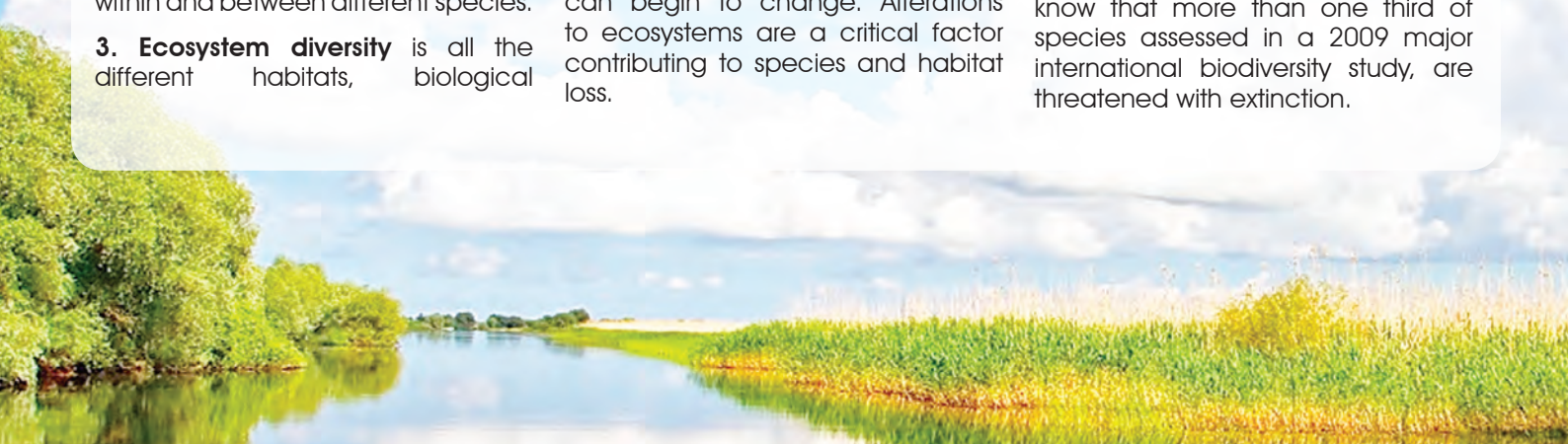
Some conservation organizations estimate species are heading towards extinction at a rate of about one every 20 minutes.

One figure frequently cited is that the rapid loss of species we are seeing today is estimated to be between 1,000 and 10,000 times higher than the natural extinction rate.

Experts calculate that between 0.01 and 0.1 per cent of all species will continue to become extinct each year, if we carry on with business as usual.

That may not sound like very much, but consider that if there are 100 million species on Earth as some estimates suggest, then between 10,000 and 100,000 species are becoming extinct each year.

Looking at recent assessments we know that more than one third of species assessed in a 2009 major international biodiversity study, are threatened with extinction.





Of the 47,677 species in the International Union for Conservation of Nature (IUCN) Red List of

Threatened Species of 2009, 17,291 are deemed to be at serious risk<sup>3</sup>.

The list reveals that 21 per cent of all known mammals, 30 per cent of all known amphibians,

12 per cent of all known birds, 28 per cent of reptiles, 37 per cent of freshwater fishes, 70 per cent of plants and 35 per cent of invertebrates assessed so far, are under threat.

## Why does it matter?

Biodiversity conservation provides substantial benefits to meet immediate human needs, such as clean, consistent water flows, protection from floods and storms and a stable climate.

The loss of biodiversity is dangerous and its consequences are immediate:

- Fewer fish in the sea, means less food for our survival and a lack of clean water.
- Fewer opportunities for livelihoods, for better health, education, and a better life.
- A lack of forest resources such as food, or plants for medicine.
- In the long term, it also means less income for communities, which are often already amongst the poorest on Earth.
- Less food for our survival.

## What are the solutions?

There are a number of initiatives aimed at enhancing sustainable development and promoting beneficial conservation of

biodiversity in countries around the world.

These include:

1. The "Green Economy Initiative" has been defined as one which will accelerate the transition to a low-carbon, resource-efficient economy able to meet multiple challenges, and deliver multiple opportunities for the twenty-first century.

2. Promoting an increase in the number, size, and connectivity of protected areas, both on land and at sea.

3. Increasing focus on the implementation of Multilateral Environmental Agreements related to biodiversity such as:

- The Convention on Biological Diversity (CBD)
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- The Convention on Migratory Species (CMS)
- The Ramsar Convention on Wetlands and The World Heritage Convention

4. Increasing "Communication, Education and Public Awareness" (CEPA) programmes related to biodiversity with an aim to relate biodiversity to people and their livelihoods.

5. Identifying and creating opportunities for rural enterprises based on biodiversity such as eco-tourism, bio prospecting to benefit local communities, the environment, species and their habitats.

6. Encouraging development that is sustainable and based on biodiversity by drawing attention to regions that might otherwise be developed in an unsustainable way.

7. Providing important economic

and social benefits that provide local communities and incentives for habitat protection.

8. Identification of options for sharing the benefits of conservation and sustainable use with local communities and stakeholders

### There is a recipe we can follow:

1. Relate biodiversity to everyone's daily needs so that the ownership for saving biodiversity is spread and everyone feels responsible for stopping loss.
2. Ensure science, policy and politics play an equal role in decision making.
3. Economics make a great case to argue for conservation action. But such arguments should be translated into national and local actions to realise the potential of biodiversity.
4. Revalue our choices and lifestyles to provide space for the species that inhabit this Earth. Have no doubt. This is relevant to us all.

For more information please visit: [www.environment.gov.za](http://www.environment.gov.za)

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# Spotlight on beneficiaries of Environmental Programmes

The Environmental Programmes (EP), within the Department of Environmental Affairs (DEA), is responsible for identifying and ensuring implementation of programmes that employ Expanded Public Works Programmes (EPWP) principles to contribute towards addressing unemployment in line with the “decent employment through inclusive economic growth” outcome, by working with communities to identify local opportunities that will benefit the communities.

The main goal is to alleviate poverty and uplift households especially those headed by women through job creation, skills development, and use of Small Medium and Micro Enterprises (SMMEs) whilst at the time contributing to the achievement of the departmental mandate.

## 1. Working for Water:

The programme aims to improve the integrity of natural resources by preventing the introduction of new invasive species; and, management of the impact of established invasive alien species.

These are achieved through integrated prevention and control methods, and supported by the use of incentives, disincentives, advocacy and research.

The programme addresses problems of water security (quantity and quality, and impediments to its use, including through structural damage, thermal pollution and eutrophication), threats to biological diversity and the ecological functioning of natural systems.

### “I am a responsible herbicide applicator”

**Names:** Mpaie Edith

**Surname:** Matsepe

**Age:** 28

**Geographical Location:** Tafelkop

**Gender:** Female



**Project:** Lower Olifant

**Position:** Herbicide Applicator

**Date Started:** September 2010

### How has Working for Water developed your skills?

The induction training taught me about invasive alien plants and how to control them. I have gained knowledge on the handling of herbicides, safe use of personal protective equipment and first Aid. I am a responsible Herbicide Applicator.

### How has Working for Water helped you to earn an income for you and your family?

With my salary I am able to take care of my two kids. I also managed to use my salary to pay for a driver’s license.

## 2. Working on Fire:

The programme aims to enhance the sustainability and protection of life, livelihoods, ecosystem services and natural processes through integrated fire management. In doing this it has to develop capabilities and to contribute resources and provide services to: Fire Protection Associations, land-management and jurisdictional agencies;

The use of fire for the control of invasive alien plants and in natural resource restoration.



### “I was able to build a house for my mother”

**Name:** Naledi

**Surname:** Lekuleni

**Gender:** Female

**Age:** 27

**Position:** Forest firefighter

### Geographical Location:

Bushbuckridge, Mpumalanga

How did you join the Working on Fire programme?

I joined WoF in 2013 after my dreams of pursuing a career in Social Work were left stranded due to financial constraints.

How has Working on Fire helped you to earn an income for you and your family?

Being a participant within the programme, I have since saved up enough money to build my mother a house. I plan on saving even more money so I can register for a short course in a Health and Safety related field.

What does being a firefighter mean to you?

Being a veld and forest firefighter enables me to protect the environment and save lives and properties, from the harm caused by wildland fires. Our teams comprise of 25 firefighters. Our work includes fire management planning, fire suppression, detection and fire prevention. We also conduct community fire awareness activities in schools and communities.”



# Changing lives through DEA's Working for the Coast

By Tshego Letshwiti

**N**elson Mandela once said, "As long as poverty, injustice and gross inequality persist in our world, none of us can truly rest." This quote rings true to the Department's role in combating poverty, and 35 year old Phindiwe Mlungu is living testament to this. Her life changed for the better when she joined DEA's Working for the Coast Project which operates between Silverstroom and Houtbay in the Western Cape. She had a chat with us to share her experience in the programme. The programme's main objectives are the:

- Rehabilitation of the coastal environment, including but not limited to dunes and estuaries.
- Cleaning up of the coastline in general and the beaches in particular. Upgrading and maintaining facilities and infrastructure along the coast.
- Facilitating access to the coastline without compromising the environment.

## Tell us a bit about yourself

I grew up in Umtata in the Eastern Cape and did my secondary education at Jangile High School unfortunately I did not finish my matric and left school while I was in Grade 11. My family then relocated and moved to Cape Town where we stayed in the Milnerton area, and at a later stage moved to Du Noon informal settlement where we still reside.

During that period, my family endured numerous challenges as my father was the only breadwinner and could hardly cope in providing for all our basic needs. It was tough, but we survived against all odds.



**Above:** Phindiwe Mlungu's life changed for the better when she joined DEA's Working for the Coast Programme.

## How did you join the programme?

I went to my local municipality in my area to add my details onto the database for unemployed people.

I was unemployed for nearly 22 months and was desperate for work, I had to make an effort due to the difficult situation and financial shortcomings, and it was a very stressful time in my life. My biggest wish during that period was just to get some form of employment.

Eventually I got a call from Khoisan Implementation to come for an interview, I was then shortlisted and informed to come for an induction, which was the day I signed my contract with the company and currently still work for them. To be honest, I'm living my dream at the moment, because I still have my job which provides me with some form of stability for almost 24 months it really has changed my life in so many ways.

## What skills have you developed ever since you joined the programme? What is your income?

I started on the project as a general worker for (R90.00/day) after gaining some knowledge through training sessions provided by different service providers in the early phases of the programme, where I gained confidence to improve my work skills.

My character and work performance improved drastically. I was put on probation for one month to fulfil the duty of team leader which I executed well. As a team leader I now earn more money (R114.00/day) which made it possible to have more control over my financial challenges and gain vital leadership skills.

I've also learnt to have goals and focus my objective in executing tasks accordingly. I'm truly grateful to the Department of Environmental Affairs, Alistair Yardley (owner of Khoisan) and my manager (Denzil Brandt) for the opportunity I was given to overcome poverty and rise above my challenges. I don't know how my life would've been if I hadn't found this opportunity, the experience I have gained through this venture will last me a lifetime.

**"I was unemployed for nearly 22 months and was desperate for work, I had to make an effort due to the difficult situation and financial shortcomings."**



## About the contributor: Tshego Letshwiti

Tshego Letshwiti is an Assistant Director: Internal and External Communications at the Department of Environmental Affairs in Cape Town. Ms Letshwiti is a Journalism graduate with experience in print and broadcast media.

# Wetlands for a sustainable urban future

By Erica Mathye



**Above:** Working for Wetlands beneficiaries from Colbyn Wetland Valley enhancing the sustainable use of the wetland.



**Above:** Working for Wetlands beneficiary, Ms Cynthia Mashele.

The search for better job opportunities has seen people flock to cities from rural areas. Gauteng is the smallest province in South Africa but it has the largest population. Because wetlands matter in rural areas as much as they do in urban areas, the 54th Standing Committee of the Ramsar Convention approved the theme "Wetlands for sustainable urban future," to celebrate World Wetlands Day in 2018.

The Department of Environmental Affairs (DEA) raised awareness around the value of wetlands by inviting members of the media to profile the work being done at the Colbyn Wetland Valley that is situated in the jacaranda-lined streets of Pretoria. The Colbyn wetland is vulnerable to storm water flow due to developments around the area.

"A rapidly growing population comes with enormous challenges for city planners and managers. They have to make sure that cities today are able to deliver basic services such as accommodation, transport and water, and also make sure that these cities are safe, resilient and environmentally friendly," said the Secretary General of the Ramsar

Convention on Wetlands Ms Martha Rojas Urrego.

She added that during storms, urban wetlands absorb excess rainfall which reduces flooding in cities and prevents disasters and their subsequent costs.

The Gauteng Provincial Coordinator for DEA's Working for Wetlands programme, Ms Tumi Mekgoe, said awareness raising and education around the value of wetlands continue to be crucial subjects for the department in ensuring lesser damage to developments and people.

"Wetlands in urban areas are particularly under threat due to overpopulation where people undertake huge developments and others even build house on top of wetlands, without knowing.

The programme seeks to protect, rehabilitate and enhance the sustainable use of South Africa's wetlands. The programme's philosophy is underpinned by four interlinked pillars – rehabilitation; communication, education, participation and awareness; applied research and building capacity.

## Testimonial: Working for Wetlands

Ms Cynthia Mashele (32) from Giyani in Limpopo is a safety representative at the Colbyn wetland project. She has been doing work for Working for Wetlands since 2014.

### How has Working for Wetlands changed your life?

This programme has helped me to put food on the table for my two children. I was unemployed for a long time before I got into this programme and it has completely changed my life. I would encourage other women to seek out such opportunities just like I did through my local municipality.

### What are your future aspirations?

This programme has taught me that impossible is nothing! On a daily basis, we handle bricks, cement and concrete on a daily basis and we are mostly women.

I dream of becoming a businesswoman in construction because Working for Wetlands has shown me that it is possible for a woman to lead in a previously male-dominated field," she said.



### About the contributor: Erica Mathye

Erica Mathye is the Deputy Director: Editorial Services at DEA. Before joining the Department, she worked as a journalist, literature editor and sub-editor for various publications. Her interests include travelling and spending time on Pinterest looking for home improvement ideas.



# KZN's successful Working on Land rehabilitation project

By Mahuma Ramashala



Above: Before rehabilitation.



Above: After rehabilitation.



The Department through the Environmental Protection and Infrastructure Programme (EPIP) provides for funding labour intensive community-based projects that support the mandate of the Department.

The Working for Land (WfL) focus area is aimed at sustainable resource utilisation based on community partnerships and cooperation. It strives to encourage and support sustainable land use practices, raise awareness and promote resource conservation ethics.

One of the issues of concern within the Working for Land programme is Land Degradation Neutrality (LDN), which is defined by the UNCCD. The definition emphasises the importance of ecosystem services in achieving sustainability of food production, which links to the 2030 agenda for Sustainable Development Goals (SDGs) and key national development priorities of reducing poverty, ensuring food security, creating jobs and reducing inequality.

WfL projects are directed towards restoration and rehabilitation of degraded land, as well as the composition and structure of the environment, leading to better performing ecosystems. Improved ecosystems will generally lead to increased carbon sequestration,

and higher water yields of better quality. It will also reduce environmental risks and improve the sustainability of livelihoods while increasing productive potential of land and promoting economic empowerment in rural areas.

The aim of the KwaZulu-Natal (KZN) based Nquthu Land Rehabilitation project was to improve the quality of land that provides for and sustains its inhabitants. The degraded ecosystems were rehabilitated to a state where they are able to maintain or support the natural species and functioning of that system. It addressed degradation of land due to desertification, overgrazing, soil erosion, poor storm water management and unsustainable farming practices.

The project deliverables included the construction of gabions, sloping of dongas, and planting of grass to rehabilitate eroded land. In addition a 1 000 indigenous trees were planted. Local communities became more aware on multiple issues related to land degradation, including its causes, how to prevent it, and measures to take to rehabilitate land as a result of the implementation of the project. Trees were planted at schools in order to encourage and support sustainable land use practices, raise awareness and promote resource conservation ethics to learners and educators.

The participants of the Nquthu Land Rehabilitation project benefited not only through remuneration, but also through attending accredited and non-accredited skills training offered by the project to develop specific capacities.

A total number of 192 temporary job opportunities for local unemployed people were created through rehabilitation of the degraded land. The duration of the project was 16 months. The job opportunities were taken up by 106 (55%) women, 115 (60%) youth and 4 (2%) people living with disabilities. The Nquthu Land Rehabilitation project was funded to the value of R15 million.

This project was a flagship project for the 2015 World Day to Combat Desertification (WDCD) celebrations. The 2015 WDCD event was a joint occasion where three ministers – Environmental Affairs; Agriculture Forestry and Fisheries; and Rural Development and Land Reform – concerned with land issues, attended the event. This project was successfully implemented and the results of the rehabilitation do not disappoint.

The Working for Land focus area will continue to rehabilitate degraded land, create platforms for raising awareness among communities and schools concerning how to take care of and protect the land.



## About the contributor: Mahuma Ramashala

Ms Mahuma Ramashala is a Deputy Director in the Department of Environmental Affairs, within Environmental Protection & Infrastructure Programme (EPIP) Chief Directorate, responsible for planning and quality assurance of projects implemented under the Working for Land focus area.



# Frontline ranger EMIs encouraged to study further

By Zibuse Ndlovu



**Above:** (From left to right) Ezemvelo KZN Wildlife, Cathedral Park Nature Reserve's field ranger, Ms Ayanda Miya, Ms Nomsa Ngcobo, and Mr Siyabonga Zwane are some of the heroic rangers who have dedicated their lives in guarding, monitoring and protecting South Africa's protected areas for present and future generations.



**Above:** Rangers during the excursion, they were divided into two groups - Group A excursion to Maropeng and Group B to Sterkfontein.

**H**undreds of field rangers who gathered at Misty Hills, in Muldersdrift were encouraged to take advantage of learning opportunities available for additional training and experience. This was during the 2018 EMI Grade 5 Field Ranger Summit hosted by the Department of Environmental Affairs' Environmental Management Inspectorate (EMIs) on 06-8 March

2018, under the theme: **The EMI Field Ranger: Securing Our Environment.**

Speaking at the summit, the DEA's Director: HR Sector Education, Training and Development, Mr Thomas Mathiba said it was important for rangers to empower themselves with additional skills, especially the ones with only matric certificates. "The world is changing, you just have to try to be as sophisticated as other

rangers in other parts of the world, so it is important for you to be the best at what you do," said Mr Mathiba.

The summit also allowed the rangers an opportunity to engage and learn from guest speakers who presented on different topics. The purpose of the summit was to provide a national platform to discuss issues specific to EMI Field Rangers that have also been highlighted in several high level,



## About the contributor: Zibuse Ndlovu

Zibuse Ndlovu is the Assistant Director: Editorial Services at the Department of Environmental Affairs, within the Communications Chief Directorate.





strategic documents. "The event was intended to maintain a sense of unity and cohesion among the EMI Rangers from various national and provincial conservation authorities, highlighting the critical role that they play in the Environmental Management Inspectorate or "Green Scorpions" network. The summit also provided the rangers with an opportunity to share their own challenges and successes; many of which turned out to be experiences shared and echoed by many of their colleagues across the country," said Deputy Director: EMI Capacity Development, Mr Jacques du Toit.

While it is still a male dominated industry, there are dedicated female rangers who work as hard as their male counterparts, covering large

**"The world is changing, you just have to try to be as sophisticated as other rangers in other parts of the world, so it is important for you to be the best at what you do."**

areas, at times facing immense danger. One of these fearless women is Ms Reginah Smith, she is a Rhino Protection Officer at the North West Parks Board's Pilanesberg National Park, and has dedicated her life to protecting South Africa's endangered species.

She started working for the Pilanesberg National Park 13 years ago as a gate attendant helping visitors when she realised that there was a lot she didn't know about nature and other environmental issues. "I decided to join the conservation when there was an incident of elephants that were trapped by fire in my reserve, that's when I decided to become a ranger, I do the same job done by male ranger, I climb mountains; carry a rifle; do both foot and extended patrol like they do. I have a team of tough officers, and we help each other where we can," said Ms Smith.

Ms Smith's wish is to see every ranger being dedicated in protecting the country's precious species with passion and understanding. "I aim to continue doing wonders for my

organisation as a dedicated ranger, and I want to extend the knowledge that I have to younger generation, so that they understand the importance of our natural resources," said Ms Smith.



**Above:** Ms Reginah Smith, Rhino Protection Officer at the North West Parks Board's Pilanesberg National Park.





# Progress on the fight against rhino poaching

Image by Veronica Mahlaba

The hashtag #RhinoUpdate became top of the trending list on Twitter on 25 January 2018 when Minister Edna Molewa outlined the progress on the fight against rhino poaching. The Minister presented her first report back for 2018 before a room full of members of the media as well as government officials. She was accompanied by industry experts and the Minister of State Security, Mr Bongani Bongo.

Below is an extract from the Minister's speech

There has been progress in a number of areas, including arrests, investigations and successful convictions of rhino poachers and smugglers, as well as the stepping up of technological and other interventions within our joint operations.

Our implementation plan for the Integrated Strategic Management of Rhinoceros is guided by the relevant Cabinet Decisions and the outcomes of the Rhino Conservation Lab held in 2016 under the auspices of the Biodiversity element of Operation Phakisa.

## Poaching Statistics for 2017

There has been a minor decrease in the number of rhino poached nationally in 2017. A total of 1 028 rhino have been poached from 1 January 2017 to 31 December 2017 compared to 1 054 in the same period for 2016, representing a



Above: Minister Molewa accompanied by industry experts and the former Minister of State Security, Mr Bongani Bongo.

decrease of 26 animals.

With regards to the Kruger National Park (KNP), a total of 504 rhino rhinos were poached between January - and the end of December 2017. This is 24% less than the 662 recorded in 2016.

As a result of our anti-poaching strategy in the KNP, we are now seeing a decrease in the number of poacher activities in the park with a total of 2 662 recorded in 2017 compared with 2 883 in 2016. This represents a percentage decrease of 7, 6%.

Whilst there has been a decrease in the number of rhino killed for their horns in the Kruger National Park, the number of rhino poached

unfortunately increased in KwaZulu-Natal, Northern Cape, Mpumalanga, Free State and North West.

It is with concern that we also report that in 2017, 67 elephants were poached in the Kruger National Park and one was poached in KwaZulu-Natal. Specific risk areas have been identified and strategies to address the threat are being adapted and implemented.

## Compulsory Interventions

### Intensive Protection Zone

In our last briefing we reported that an Intensive Protection Zone (IPZ) had been established in key reserves in KwaZulu-Natal province and that we were investigating rolling it out in





other provinces. I am pleased to report that an IPZ has since been established in the Eastern Cape.

## Patrol Optimisation

The Patrol Optimization Program which began in the Balule Game Reserve with the all-female Black Mamba anti-poaching unit in 2016, has since been successfully expanded into six other rhino reserves. As indicated above, a strategic partner in our anti-poaching team is the South African National Defence Force who are crucial in assisting with border integrity and providing support to the SAPS and our rangers. These joint operations are coordinated in the Mission Area Joint Operations Centre.

## Arrests:

In the reporting period, a total of 502 alleged rhino poachers and 16 alleged traffickers were arrested nationally bringing the total figure to 518. This represents a decrease from 2016 when a total of 680 poachers and traffickers were arrested.

For the Kruger National Park, the number of arrests of alleged poachers stood at 446 in 2017 – this comprises 189 arrested inside the KNP, and 257 adjacent to the Park. This represents an increase compared to 2016 when a total of 417 were arrested inside and adjacent to the KNP.

A total of 220 weapons were seized in rhino-related incidents both inside and outside the KNP in 2017.

Ladies and Gentlemen, it would be important for us to mention that there has been arrests made for poaching-related offences

from amongst our own personnel. Regrettably, during 2017, 21 officials were arrested in this regard.

## Investigations and Prosecutions

Between 1 April 2017 and 31 December 2017, the Hawks arrested 16 level three to four (courier/local buyers and exporters) wildlife traffickers of South-East Asian, South African, Mozambican, Zimbabwean and Kenyan origin – and confiscated 168,46kg of rhino horn. Given the complexities of these syndicates we regard this figure as a significant achievement.

These cases were linked to rhino poaching incidents in KwaZulu-Natal and Limpopo and the arrests were further linked to incidences in Swaziland and Mozambique. Ten of these cases involved end-users from Asia.

The coordinated efforts between DPCI, the South African Revenue Service (SARS) Customs and Excise, supported by the Environmental Management Inspectors (EMI's) have resulted in the dismantling of 35 trafficking networks linking the transit countries of Swaziland, Mozambique, Namibia and Kenya to the end-user countries in Asia.

## Ports of Entry and Exit

With regards to the detection of horn at ports of entry and exit, our Environmental Management Inspectors (EMI's) or Green Scorpions continue with their work at OR Tambo International Airport and assist among others the SARS and SAPS with cases where illegally traded rhino horn have been detected.

During 2017 there were 8 seizures of rhino horn at OR Tambo International Airport.

## Rhino Guardians

In 2017 we initiated the rhino guardian programme in the Kruger National Park. It has three elements – surrogacy for rhino orphans, guardianship of black rhino and detailed monitoring of black rhino in specific areas. This programme is being rolled out incrementally around the country.

## New Interventions & national and international cooperation

### Resourcing anti-poaching and rhino security initiatives

The fight against rhino poaching has been greatly enabled through the assistance of a range of donors including but not limited to the GEF, the Peace Parks Foundation, the WWF, various US government agencies and government departments and other international funders.

The major recipient of our funds from the GEF 5 Rhino project was the University of Pretoria's Veterinary Genetics Laboratory (VGL).

We would like to thank our real heroes – our rangers and all our law enforcement agencies who remain at the frontline of this fight. Without their efforts we would surely be seeing more losses than we have.

We want to once again call on members of the public to report any suspicious activities around wildlife to our environmental crime hotline which is 0800 205 005 or the SAPS number 10111.

**For the full speech please visit [www.environment.gov.za](http://www.environment.gov.za)**





# LET US KEEP OUR STORY ALIVE

South Africa is home to a wonderful natural heritage - plants and animals that are famed throughout the world. We are proud of our biodiversity.

Illegal trade in wildlife threatens the survival of some of South Africa's most iconic species. If a plant or an animal becomes extinct - it is gone forever. When you choose not to support illegal trade in wildlife, you help to make sure your children and grandchildren can enjoy South Africa's wildlife - our heritage.

“ ILLEGAL TRADE  
IN WILDLIFE  
THREATENS THE  
SURVIVAL OF SOME OF  
SOUTH AFRICA'S MOST  
ICONIC SPECIES ”

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# THINK BEFORE YOU SHOP!

South Africa is one of more than 180 member countries working together to regulate trade in endangered species through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which has become a part of South African law. In addition to the import and export of certain species, our laws also regulate activities occurring within our borders, such as the moving, owning, selling and buying of wildlife.

Many animals and plants, alive or dead, including animal/plant based products are used in trade. These include leather goods; clothing; ornaments; jewellery; souvenirs and traditional medicines.

If you do not have the required permits, the products will be seized and you may be prosecuted!

## Green Scorpions

Environmental Management Inspectors (also known as the Green Scorpions) are officials designated to monitor compliance with, and enforcement of, environmental legislation in South Africa.

If there is something you want to report or are unsure of contact the Environmental Management Inspectorate Green Scorpions 0800 205 005).

### Department of Environment Affairs

473 Steve Biko Street, Arcadia, Pretoria, 0083, South Africa

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0800 205 205

E-mail: [callcentre@environment.gov.za](mailto:callcentre@environment.gov.za)

Report Environmental Crimes:  
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# Leadership Profile:

## Mr Sabelo Malaza

### Chief Director for Integrated Environmental Authorisations

By Zibuse Ndlovu

“Good leadership is about the substantiation of normatively suitable conduct through personal actions and interpersonal relationships, and the advancement of such conduct through to followers through a reciprocal communication, reinforcement and decision making process,” that’s how Mr Sabelo Malaza describes good leadership. He believes that good leaders should always ask themselves the question “how are my values, vision and voice congruent with the common good?”

Mr Sabelo Malaza is the Chief Director for Integrated Environmental Authorisations, the Chief Directorate is mainly anchored around competently processing Environmental Impact Assessment applications within legislated timeframes. It is primarily responsible for processing applications that are at the centre of the country’s economic aspirations. We spoke to him about being a leader in the Department of Environmental Affairs.

**What, in your opinion, makes a good leader?**



There are four pillars that make up good leaders:

**Values:** good leadership starts with an understanding and a commitment to one’s distinct core values.

**Vision:** it is the ability to frame our actions particularly in service to others to be consistently within the real picture of what ought to be.

**Voice:** it is the process of articulating our vision to others in an authentic and compelling way that incites and motivates to action.

**Virtue:** it is an understanding that we become what we practice, we foster virtue by practicing virtuous behaviour.

**What do you find most challenging about working for the Department of Environmental Affairs?**

The biggest challenge I think we face as a Department is measuring and getting an accurate sense of how our customers (which is the South African public) honestly feel about the quality of the service and the actual service we are offering to them.

**What do you consider to be your single greatest achievement in life thus far?**

My greatest achievements are still ahead of me.

**If you could give your 20-year-old self any advice, what would that be?**

I’ll listen before I speak. I’ll listen with my ears with the intention to understand, my heart with a view to find out more and not make assumptions and my eyes to diagnose.

**What does going green mean to you and how do you practice it in your daily life?**

Going green means making a conscious choice to impact the planet positively. We use LPG gas as a source of heat and cooking, we have a geyser that is solely powered by solar, we have an organic orchard as well as a vegetable garden, we use shared transport work and we choose to buy green and ethical products.

**What are 3 core tenets of your management/leadership philosophy that you would never compromise?**

- Trust
- Confronting reality;
- Practice accountability.

#### Quick facts:

**Home town:** Malelane, Middelplaas village, Mpumalanga Province.

**Role model:** Reuben Magodzi Shongwe he was a true inspiration and magnificent parent figure to have.

**Favourite quote/motto:** “Ultimately, man should not ask what the meaning of his life is, but rather must recognize that it is he who is asked. In a word, each man is questioned by life; and he can only answer to life by answering for his own life; to life he can only respond by being responsible.” By Victor Frankl.

**Hobbies:** Reading, jogging, farming and watching sports.

**I am currently reading:** Creating a world without poverty: Social business and the future of capitalism - Muhammad Yunus

**I am currently listening to:** “Indzawo yami” by Bholoja

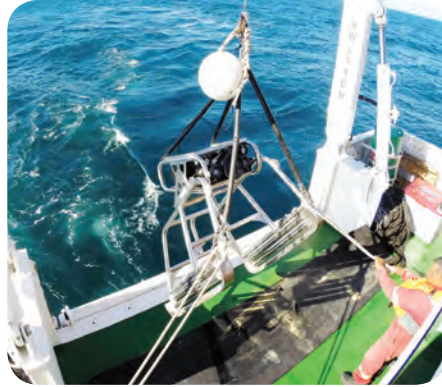


# Ski-monkey unravelling underwater mysteries

By Zoleka Filander and Tshego Letshwiti  
By Picture: Charles von der Meden



**Above:** SkiMonkey III is loaded onto Agulhas II for initial trials.



**Above:** Deepsea benthic camera system, SkiMonkey III is deployed from aboard.



**Above:** SkiMonkey III camera at the Prince Edward Islands.

In recent years ski-monkey underwater observations provided by underwater cameras have revolutionised offshore benthic research. Although offshore camera platforms have drastically increased the amount and quality of data available at all depths, the technology has made a significant impact in areas that go beyond scuba diving capabilities.

With the development of underwater systems, such as the DEA's benthic camera (ski-monkey), scientists are now able to investigate these previously inaccessible areas of the oceans. Through live streamed videos and pictures scientists can now, for the first time, capture the incredible beauty of this unique under-water world.

These innovative technologies are now recognised as an essential tool in monitoring programmes, alongside other more traditional technologies such as dredge and grab (physical seafloor samplers), and provide valuable information on many of today's most pressing ecological questions. Data acquired

through underwater technologies range from behavioural cues (which were once not easily documented from dredge physical sampling), data on how animals interact within their surroundings, seabed characterisation, and better species descriptions; all of which are critical stepping stones towards the better management of our ocean resources.

The DEA ski-monkey is configured to collect data in either a towed (positioned on ski's) or drop camera (tri-pod legs) system, and is pressure tested to 650 m. Finer components of the benthic camera include; three lasers which assist in determining size of animals in the field of view, and two flash lights that serve to illuminate the darker depths of the ocean.

The design includes both a detachable instrument that records temperature data (probe), and an altimeter that records point specific depth; each of which are attached to the main frame of the system. Apart from these external units, the interior control panel links the camera to the observational room

where scientists and technicians eagerly wait for the mysteries of the deep to reveal themselves.

Operating the ski-monkey is not as straight forward and simple as it may sound, as such the department has a dedicated team that manages both the technical operations and processing of information.

This team most often consists of Mr Laurene Snyders (DEA Scientific Technician) Mr Mfundo Lombi (DEA Electronics Technician) and Ms. Zoleka Filander (DEA Offshore Scientist). Each one of these DEA officials bring a variety of expertise that contribute to the operational success of the system. Laurene and Mfundo manage the technical components of the system and this includes servicing, calibration (post and pre surveys), modifications that can yield quantitative information, and at sea operations. Zoleka on the other hand, develops sampling designs that maximise the use of the data generated whilst being considerate of the system's limitations.



### **About the contributor: Zoleka Filander**

Zoleka Filander is an Offshore Benthic Ecologist within the Department of Environmental Affairs: Oceans and Coasts Chief Directorate. Her areas of interest range from taxonomy, phylogenetics, canyon ecology, conservation planning and science outreach. Further to this, she envisages building skills in Marine Spatial Planning through her PhD registered at Nelson Mandela University.

# DEA scientists participate in research on board Dr Fridtjof Nansen vessel

By Tshego Letshwiti and Mthuthuzeli Gulekana  
Images by Asithandile Sthongana



**Above:** Dignitaries at the port call event pose for a picture with Minister of Agriculture, Forestry and Fisheries, Mr Senzeni Zokwana.



**Above:** DEA's scientific team from left: Dr Alan Boyd, Jenny Huggett; Zoleka Filander, Mthuthuzeli Gulekana, Mutshutshu Tswani.

The Department of Environmental Affairs (DEA) joined the Food and Agriculture Organization of the United Nations (FAO) in celebrating the port call event early this year at the Durban harbour. The event was hosted onboard the research vessel Dr Fridtjof Nansen, which was set to sail later that week on a research cruise with various scientists onboard.

The event was organised by the FAO in partnership with the Norwegian Embassy, the Department of Agriculture, Forestry and Fisheries (DAFF), DEA, as well as other institutions that have an interest in marine research, governance and management in the west and east coasts of South Africa. Through the utilization of the world-class RV Dr Fridtjof Nansen, marine scientists from these Norwegian and South African partner institutions collect marine data and information related to marine living and non-living resources.

The DEA played a leading role in this partnership particularly when it comes to collecting environmental data and information to understand ecosystem functioning and processes, whilst DAFF focused on the fisheries research component.

To this end, the DEA has provided researchers the opportunity to participate as leaders in various disciplines onboard, as well as to develop capacity of the students and junior scientists onboard. For instance, the biological oceanography component was led by Jenny Huggett, who specializes in plankton research. Plankton is a collection of organisms that act as a source of food for other marine animals such as fish and whales. The abundance and distribution of plankton can indicate the health of the marine environment they occur in.

The Indian Ocean bordering South Africa is known to be one of the warmest and saltiest oceans worldwide, combined with the fast Agulhas Current, and it influences the inland weather and climate of the East Coast of South Africa. In order to understand the physical dynamics during the cruise, physical parameters (sea temperature, saltness, current speed and direction, etc.) were measured using high-tech equipment onboard the Dr F Nansen. William Sonnenberg led this particular physical oceanography component during the cruise.

DEA requested the Dr F. NANSEN to collect samples along the Agulhas System Current Array (ASCA) which is a RSA-USA-Netherlands collaborative monitoring project on the South coast of South Africa seeking to understand the heat-salt exchange between the Indian and Atlantic Oceans and how this influences global climate, particularly in the northern hemisphere.

The EAF/Nansen programme is generously funded by the Government of Norway, with FAO being the implementing agency of the programme, whilst the technical and the scientific components being led by research institutions in Norway particularly the Institute for Marine Research (IMR).

Since it entered the South African waters in November 2017, the Dr F. Nansen has conducted research on various disciplines including but not limited to, physical, chemical and biological oceanography; marine biodiversity, fisheries research, microplastics and observations of marine top predators (whales, seabirds, sharks, etc.).

## About the contributors: Mthuthuzeli Gulekana and Tshego Letshwiti

Mr Mthuthuzeli Gulekana is a Science Manager in the CD: Oceans and Coastal Research; Directorate: Oceans Research. He obtained his MSc degree (Physical Oceanography) from the University of Cape Town.

Ms Tshego Letshwiti is an Assistant Director within the Internal and External Communications Sub-Directorate at the Department of Environmental Affairs, in Cape Town.



# Atlas to help South Africa's sectors respond to Climate Change

By Reyhana Mahomed

The second edition of an atlas showing South Africa's vulnerability to climate change has recently been launched in Johannesburg, to help the country's economic and social sectors take informed decisions to avoid risks related to climate change.

Developed by the Council for Scientific and Industrial Research (CSIR), the South African Risk and Vulnerability Atlas (SARVA) disseminates spatial and non-spatial data that describes, assesses and evaluates the risks and vulnerabilities facing the country due to climate change.

Designed to ensure that existing knowledge on global change risks and vulnerabilities is available to those who could benefit from its use, the hard copy is supported by a portal, SARVA 3.0, which is an online spatial database that directly supports users and allows free access to useful information on the impact of climate change to industries and society.

South Africa is facing an increased frequency of extreme weather events such as droughts, dry spells, heat waves and severe thunderstorms. These have the potential to increase vector-borne diseases and lead to food, energy and water insecurity, which will consequently threaten livelihoods.

In recent years, the country has experienced an El Nino-related drought reported to be one of the most worst meteorological droughts since 1904, with the average rainfall at this period in late 2014-2016 being 403mm compared to 608mm over the last 112 years.

El Ninos are associated with the warming up of the Pacific Ocean, which is normally at a rate of 0.01% but has increased to a rate of 0.1% and the danger of exceeding the 1% critical threshold is imminent.

Of critical importance is the need for planners and decision-makers to move from reactive crisis management approaches to proactive climate change and disaster risk management approaches. According to the Financial and Fiscal Commission report, the 20 most vulnerable municipalities in South Africa are rural, small towns and secondary cities.

Speaking at the launch, the Department of Science and Technology's Deputy Director-General: Socio-Economic Innovation Partnerships, Mr Imraan Patel said the atlas was a science policy initiative of the DST's Global Change Grand Plan, and was a repository of the most up to date information to support decision-making at local and national levels in South Africa.

"In a data driven world, the importance of analytical tools that can make sense of the plethora of data is self-evident. Proper analysis and the capacity to use such information will inform the innovation and technological improvements that enable South Africa to implement its nationally determined contributions to combat climate change," said Patel, adding that the atlas could serve as an educational tool to provide evidence of potential impacts of climate to communities and decision-makers.

CSIR Natural Resources and Environment Executive Director, May Hermanus, said increasingly, settlements are becoming vulnerable to risks through swelling poverty, lack of basic services and human rights, and their extension into unsafe land.

"Their vulnerabilities are expected to increase due to the high levels of informal housing and the lack of efficient management of these growth areas. Rural areas are particularly vulnerable due to their dependency on climate-sensitive resources such as water and an agrarian landscape," said Hermanus. However, climate change will affect livelihoods beyond living conditions and infrastructure.

She said that it was important for government, business and research institutions to work together in responding to these issues immediately, towards South Africa's sustainable development.

Supporting this initiative is the National Business Initiative (NBI), to ensure the business sector is able to take appropriate steps in this regard. NBI Programme Manager, Alex McNamara, said economic sectors such as mining and agriculture that depended greatly on natural resources to generate income and employment would be severely affected by the impacts of climate change.

He said climate change was affecting businesses in many ways including the interruption of operations, health and safety of employees and communities. "Business is and must remain at the forefront of adaptation planning, including the financing and implementation of solutions."



## About the contributor: Reyhana Mahomed

Reyhana Mahomed is a Communications Manager at the Council for Scientific and Industrial Research (CSIR): Natural Resources and the Environment. Before joining the CSIR, Ms Mahomed was a Deputy Director in the Department of Environmental Affairs' Chief Directorate: Communications.



# Implementing SA's National Development Plan

By Zamaswazi Nkuna  
Image by Veronica Mahlaba



**Above:** Participants during one of the stakeholder engagements sessions in Durban.

The Department of Environmental Affairs (DEA) hosted the interactive engagements on “domesticating the SDGs” as part of South Africa - European Union (SA-EU) sustainability transition series of dialogue sessions during the period of 2016 -2017. This dialogue involved interactive participation of cumulatively more than 250 stakeholders including researchers, policy makers, academia and private sector. The stakeholders engaged on issues related to the alignment of the SDGs with the National Development Plan (NDP) as a way of enhancing South Africa’s approach to the implementation and management of the sustainability transition.

The dialogue was implemented through joint partnership with Department of Planning, Monitoring and Evaluation; Department of Science and Technology in collaboration with Overseas Development Institute (ODI), Trade & Industrial Policy Strategies (TIPS), Mapungubwe Institute for Strategic Reflection (MISTRA), University of South Africa (UNISA), Human Sciences Research Council (HSRC), United Nations Environment Programme (UNEP) Regional Office in South Africa and the European Union Delegation to the Republic of South

Africa. The dialogue forms part of the SA-EU Trade, Development and Cooperation Agreement (SA-EU TDCA) and Strategic Partnership Joint Action Plan (JPA) aimed at enhancing political dialogue and cooperation on regional, African and global issues through structured discussions on issues of mutual interest.

The dialogue took the form of a series of workshops which were set up to specifically target the five environmental SDGs which DEA is responsible for influencing action. The five SDGs are SDG 12 on ‘sustainable consumption and production’, SDG 13 on ‘climate action’, SDG 14 on ‘life below water’, SDG 15 about ‘life on land’ and SDG17 ‘means of implementation’. This process was in line with implementing science policy interface within the Department of Environmental Affairs (DEA)’s thematic areas including sustainable development, the green economy and biodiversity.

The dialogue focussed on the four key dimensions namely (i) clarifying our understanding on ‘domesticating’ the SDGs in the context of NDP; (ii) identifying and interpreting evidence for sustainability transition, (iii) developing common priority actions

and the possible domesticated indicators and associated targets and (iv) approaches for monitoring progress of the sustainability transition.

Based on the outcome of the dialogue, this multi-stakeholder participatory process reaffirmed that at a high level, the SDGs and the NDP priorities are well aligned as they both seek to respond to the challenges of poverty, inequality and unemployment. There was consensus among stakeholders in that driving action in implementing the SDGs translates to progress in achieving priorities in the NDP.

Furthermore a number of issues remain a priority for the sustainability transition. This includes; shifting away from fossil fuels, climate change actions, protecting South Africa’s biodiversity, rural development and agriculture, the need for a diverse energy mix, resilient societies and circular economy.

Ultimately the recommendation is that South Africa’s sustainability transition and implementation of the SDGs should reflect a socially just transition and one that is innovative but also unique to South African context.



## About the contributor: Zamaswazi Nkuna

Zamaswazi Nkuna is a registered Professional Natural Scientist (Pr. Sci. Nat) and works as a Control Environmental Officer within the National Sustainable Development Directorate. Her work specifically falls within the area of Policy and Research on Sustainable Development, Green Economy and Sustainable Consumption and Production.



# Funding Conservation beyond fences

by Thapelo Motebo



**Above:** Alien vegetation clearing teams using bark stripping method to restore the land to its original condition, improving grazing and restoring groundwater for people and cattle.



**Above:** Livestock auction in the remote Matatiele area.

Conservation South Africa (CSA) is committed to helping societies adopt a more sustainable approach to development—one that considers and values nature at every turn and improves human well-being through the conservation of healthy ecosystems and the goods and services they provide.

Conservation South Africa (CSA) seeks to influence policy, develop markets, engage the private sector, and support communities to develop and implement conservation - based economic growth models and long-term human well-being. CSA is funded by the DEA-NRM to work in the remote corner of the Eastern Cape (in the Alfred Nzo District Municipality) with local communities, to restore and manage the landscape through eradication of alien invasive vegetation and rotational resting that is headed by ecorangers (trained herders).

Ecorangers help to introduce rotational resting, planned grazing, overnight kraaling & trampling by animals to retain nutrients back to the soil so that grass cover can be improved. Kraaling and trampling helps to stir up the soil allowing water to seep in and new grass to grow helping in restoring degraded rangelands.

Livestock improvement programmes

through vaccination have also been introduced to help improve animal health and enable access to red meat market through auctions. Bringing auctions, in partnership with Meat Naturally PTY, to the people in remote areas where they live make an enormous difference as they save on traveling costs and improved livestock fetch record breaking prices.

Meat Naturally auctions bring together community sellers with commercial buyers who can be sure of an animal's ownership and health. Before the Meat Naturally auctions, local ranchers struggled to sell their livestock — perhaps finding a local buyer looking to purchase a single animal to provision a wedding or graduation celebration. Now, buyers purchase animals by the truckload. For rural farmers, a day at the auction can represent several months' worth of income. As a result, more families are now able to afford the fees to send their children to school, and farmers can reinvest in their businesses.

Through this work an age-old herding tradition called maboella (rotational resting) has been revitalized as headed by the ecorangers. Maboella is a form of rotational resting practiced by herdsman and enforced by traditional authorities. Grazing under this system mimicked the movements of wildlife that once roamed this land, as still witnessed

by piles of rocks standing sentinel, marking the former boundaries of this managed grazing areas.

CSA implements this work in partnership with Environmental & Rural Solutions (ERS) as funded by the Department of Environmental Affairs' Natural Resources Management programme is focused on rehabilitating the upper catchment of uMzimvubu river, returning functionality to the wetlands and making its watershed the world-class wildlife habitat it once was.

The uMzimvubu River that flows from the peaks of the Drakensberg Mountains through the villages around Matatiele and into the Indian Ocean is heavily threatened by alien invasive vegetation, in particular wattle species (Acacia mearnsii - an Australian species that drains groundwater and pushes out native grass). Kraaling of livestock overnight on recently cleared land can help the native grass recover as animals trample wattle seedlings and deposit dung. Clearing teams are using environmentally friendly method such as bark stripping to control this alien invasive. Mr. Michael Kawa of DEA Eastern Cape said, "The team is also involved in the early detection and rapid response as they nip in the bud any wattle regrowth creeping in of the rested areas. This mechanism keeps the follow-up work always on the radar."



## About the contributor: Thapelo Motebo

Thapelo Motebo is the Deputy Landscape Manager for Conservation South Africa.



# iSimangaliso - Lake St Lucia changing with time

By Debbie Cooper

The restoration of the Lake St Lucia Estuary that began in 2012 is the largest wetland rehabilitation project underway in South Africa. Scientists are keenly monitoring the status of the Lake following the restoration activities. Here is the latest update presented by iSimangaliso's contracted estuarine ecologist, Nicolette Forbes of Marine and Estuarine Research (MER).

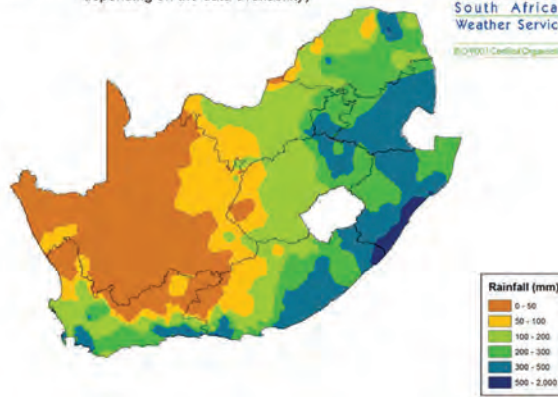
"Restoration of the estuary has continued since the completion of the major intervention, which was to remove dredge spoil between the uMfolozi River and the estuary, with the decommissioning of the Estuary car park and removal of the toilet block. This was done in recognition of and as preparation for the dynamic nature of the estuary mouth as it settles into its original configuration," said Forbes.

## Current State

### Rainfall and water levels

Relatively good winter rainfall of approximately 250 mm, received by the estuary and in its broader catchment area, between June and September 2017, maintained water levels through the dry period (satellite

**Rainfall (mm) for season July 2017 - December 2017**  
(Based on preliminary data, The number of stations vary depending on the data availability)



images). However, the onset of a hot and windy summer which has only so far yielded less than 300mm of rain, has resulted in wind related changes in water level as well as high levels of evaporative loss.

The major driver of water levels in the system over this period was the input from the uMfolozi River following its newly widened linkage behind the beach barrier feeding water into the estuary via the lower Narrows. These inflows drove the consistently higher water levels in the lower parts of the estuary during winter and through to early summer. The water level readings from the real-time stations indicated that these levels were eventually transferred through to South and North Lake and contributed to the maintenance in water levels over winter. The levels equalised over winter and were soon followed by falling levels at the False Bay,

North Lake and Wilderness sites between July and November 2017. Rising levels in the Narrows have been occurring since late September and these inflows can be expected to eventually penetrate into the lake. Rises in water levels in these northern areas would have been augmented by any inflows from the rivers entering the northern parts of the estuary: the uMkhuze, uMzinene, Hluhluwe and iNyalazi catchments.

Water levels are measured at various stations within the estuary and are included in the plot below. Water in the Narrows is above Mean Sea Level and the higher levels in the Narrows have supplemented the southern lake levels. Despite the dryness of winter, some shallow water even remained in the northern parts of the estuary with North Lake, False Bay and the Wilderness water quality stations all registering some water depth.

### Mouth status

The mouth of the estuary has remained closed since October 2014. Since then a number of over-washing events have occurred with the influence of the sea being clearly seen in the real time monitoring data showing as increases in salinity moving through the Narrows and



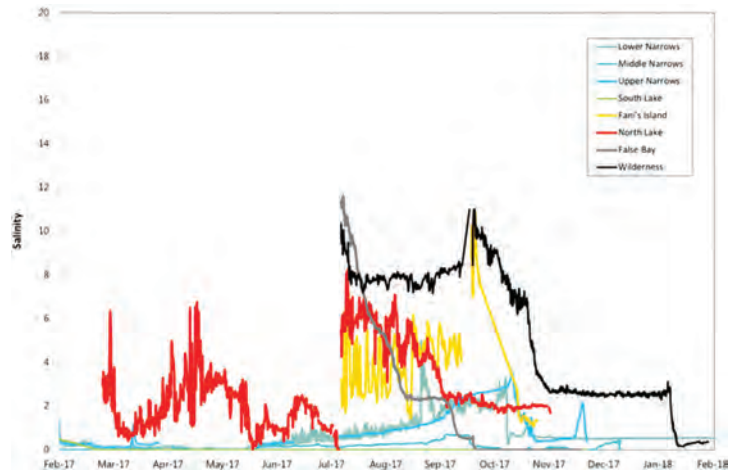
### About the contributor: Debbie Cooper

Ms Debbie Cooper is the Executive Assistant to the CEO, iSimangaliso Wetland Park Authority with 12 years' service to the organisation. With a background in environmental and destination photojournalism, a key component of her job includes content writing and photography for the Park's communications and social media platforms.





**Above:** Researcher Bruce Mann took this aerial photograph of the Lake St Lucia mouth area in January 2018.



**Above:** A salinity gradient exists with fresher conditions in the lower parts of the estuary reflecting the larger inputs of the uMfolozi River and brackish conditions increasing in the upper estuary.

even into Catalina Bay. Says Forbes, "What is really needed now is a strong freshwater pulse from the uMfolozi of a volume large enough to overtop the sand barrier or flow with enough velocity to break through and begin the process of establishing a new mouth."

### Salinity

The salinity remains low throughout the estuary reflecting conditions that developed after the onset of the 2016/2017 summer rains and salinities range from ??? in the lower estuary with some brackish water conditions in the upper estuary.

### Sediment

Changes in the lower estuary in response to the increased freshwater inputs from the uMfolozi have included the deposition of sediments in the lower reaches of the estuary through to Honeymoon Bend. This accumulation of sediment during the early phase of restoration was anticipated in the short term. The analysis of sediments has formed part of a baseline sampling programme and the sediments in this lower area are characteristically fine fluvial (river

derived) sediments. This is considered to be a short term consequence of the current conditions of low rainfall without a significant pulse of water to open the mouth. Says Forbes, "In the long term, once the uMfolozi River has had a chance to raise water levels in the estuary and then begin working through the sand barrier, outflows and tidal flushing will result in a net loss of this fine material from the lower reaches of the estuary."



**Above:** Submerged aquatic plant, *Stuckenia pectinata* in South Lake.

### Aquatic plants

Large areas of South Lake and to a lesser extent Fani's Island area had

been colonised by the submerged aquatic plant, *Stuckenia pectinata*. This plant thrives in stable water conditions with salinities below 20. These macrophytes in turn will support large numbers of epiphytic algae and at times other invertebrate fauna and in this way create important feeding and shelter habitats for a wide variety of juvenile fish. Its presence and abundance in the estuary during December 2017 indicated the sustained presence of water in the upper estuary.

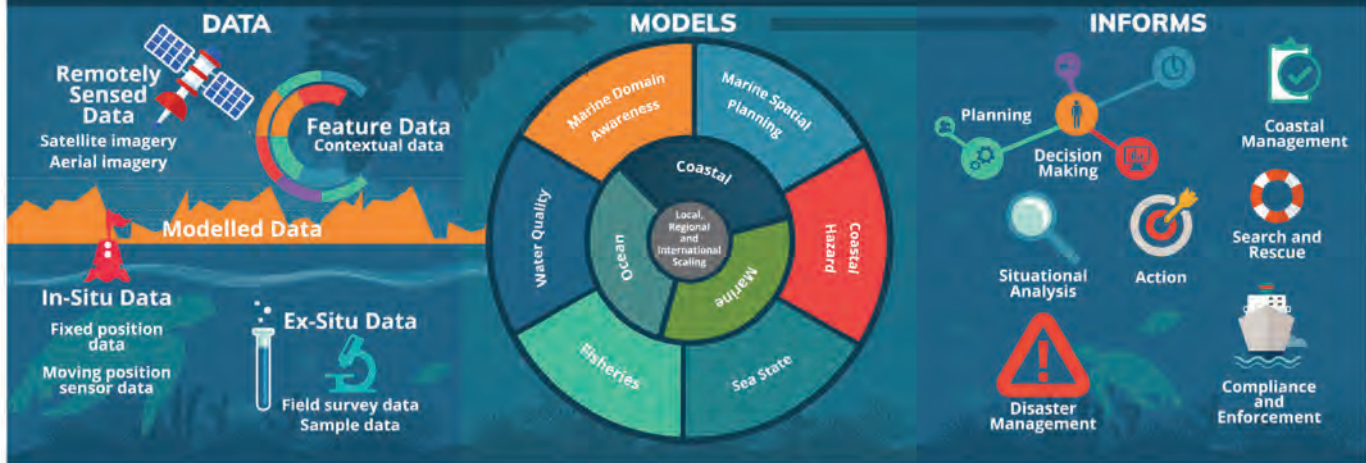
### The long view

"The El Nino effect still seems to be lingering with below average seasonal rainfall still a reality. The promise of good early rains in the first quarter of 2018 have not yet really borne fruit. Despite being one of the most studied estuaries in South Africa, no research exists with a sustained historical single mouth configuration. As we move through late summer we remain hopeful that good rains will be received that will speed up the restoration process, and watch with interest as we monitor changes as the estuary returns to its natural configuration," said Forbes.





# NATIONAL OCIMS



[www.ocims.gov.za](http://www.ocims.gov.za)

The Department of Environmental Affairs (DEA) and the Department of Science and Technology (DST) have initiated the development of the National Oceans and Coastal Information Management System (OCIMS) for South Africa—referred to as the OCIMS project.

The OCIMS project forms part of the Operation Phakisa Marine Protection Services and Oceans Governance workstream Initiative 6: "National Ocean and Coastal Information System and Extending Earth Observation Capability" action plan that is endorsed by Cabinet. Operation Phakisa focuses on unlocking the economic potential of South Africa's oceans.

OCIMS will support a variety of oceans and coastal initiatives by providing information and decision support to key stakeholders for the day-to-day management of South Africa's oceans and coasts.

The OCIMS 2019/2020 project outcomes are:

- Establish earth observation technology capacity for the South African Exclusive Economic Zone as well as the extended continental shelf;
- Deliver an operational system;
- Establish and implement the data and earth observation infrastructure.

The project outcomes will be achieved through the development of an Information Management System (IMS) that will integrate current and future oceans and coastal systems, information and expertise into a user-friendly and cost-effective IMS for the benefit of relevant stakeholders. In June 2015, the Council for Science and Industrial Research (CSIR) was nominated by DEA as a service provider to facilitate the implementation of the project and to co-develop OCIMS.



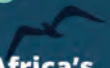
Environmental Affairs  
Science and Technology







# OCEANS AND COASTS FAST FACTS



## South Africa

Land size ~1.2 million km<sup>2</sup>

EEZ\* size ~1.5 million km<sup>2</sup>

Effective governance of South Africa's oceans and coasts remains a challenge

**3 200 km** of coastline

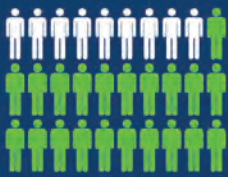
**20** key departments and institutions in the marine environment with distinct roles and maritime policies

**50** national acts regulating marine governance

**4** coastal provinces with their own socio-economic context and development goals



## OCEANS ECONOMY



**30%** of the population stay within 60 km of our oceans

**230 coastal communities** participate in the small scale fishing sector (2016) that supports over **28 000 fishing households**

### Fishing sector

is responsible for the direct employment of **2 700 people** and for the indirect employment of **100 000 people**

South Africa is positioned along one of the world's busiest shipping routes with more than **120 million tonnes** of oil and bunker fuel carried aboard ships each year and 12 000 ships visiting South Africa's ports

**98%** of the EEZ\* is subject to a right or lease for offshore oil and gas exploration or production

**312 000 tonnes**

of seafood is annually consumed in South Africa, 6.24 kg per capita

South African fisheries consist of 22 sectors, with 2 900 rights holders and 1 788 legal fishing vessels with an annual production value of **R7 billion per annum**

South Africa's aquaculture industry is growing steadily (**0.2% contribution to GDP\*\***)



The South African coastline is mined for heavy metals (titanium and zirconium) that **supplies 30% of world production**, mineral sands, cement and aggregates

**60 licenced effluent pipelines** that discharges **287m<sup>3</sup> of waste water** per annum into marine resources

**8 ports and 12 proclaimed fishing harbours**  
**12 000 ships** visit our ports each year

**25 Marine Protected Areas**

**R2 billion** - value of ecotourism to South African economy



**22%** of South Africa's coastal development is threatened by **sea level rise**

The estimated total contribution of coastal resources is over **R57 billion** (marine fishing, port and harbour development, attractive lifestyles, recreation and tourism) that is estimated to contribute to **35% of South Africa's GDP\*\***. Indirect contribution that includes waste assimilation, detoxification, recycling etc. is estimated at **28% contribution to South Africa's GDP\*\***

\* EEZ - Exclusive Economic Zone    \*\* GDP - Gross Domestic Product





# Children in the Wilderness Tri-nations Camp

By Chulumanco Myataza



**Above:** Tri-Nation Campers Group photo at the confluence.



**Above:** TTri-Nations Campers being taught how to construct and use a Tippy Tappy.

The Children in the Wilderness (CITW) is a non-profit organisation that has been in existence since 2001. Due to the fact that it's a non-profit organisation consistent fundraising is always going to be a key factor in ensuring the sustainability of the programme among African communities.

The annual Tri-nations Camp was held at the Mapungubwe National Park Auditorium and Confluence Viewpoint in the Limpopo Province. The national Department of Environmental Affairs facilitates the cross border events such as Tour de Tuli and Tri-nations in conjunction with Children in the Wilderness organisers.

CITW organized the camp with the aim to create a network of learning centres that uplift children in rural areas through educational programs that put conservation at the forefront, so as to develop environmental leaders/ambassadors who are inspired to care for their heritage and environment to ensure they become custodians of their area in the future. Furthermore the Tri-nation Camp exposes children to their wildlife heritage, builds and strengthens their capabilities to cope with life challenges and educates them with

the life skills necessary to actualise their greatest potential.

The children hosted at the camp are rural children that live adjacent to the GMTFCA and on a bi-annual basis the camp hosts twenty-four children and eight teachers from Botswana, South Africa and Zimbabwe respectively.

The camp consisted of 18 children and 12 eco mentors, who facilitated the activities and educated the pupils throughout the five day course. Lessons on Biodiversity, the food chain, Transfrontier Conservation areas (TFCAs) and a lesson on how to build and operate a tippy tappy, a device which conserves water and ensures children are aware of personal hygiene were provided throughout the five day course. Besides the activities the children were also granted the opportunity to go on a game drive and to visit the Mapungubwe museum where they learnt about the great history of the Mapungubwe area and its people. Not only did the camp educate the pupils about conservation and a host of other careers it also gave them an opportunity to network with one another and create friendships as well as widen their scope of their view of life.

International borders have always existed as physical features which are very important for territorial sovereignty and international security, however what role do they play in conservation and the protection of wildlife, besides limiting immigration patterns of fauna?

Transfrontier Conservation is an initiative which was established to drive conservation and sustainable use of biological and cultural resources through the removal of borders in-between conservation areas thus leading to the promotion of regional peace, cooperation and socio economic development in-between the countries involved.

The Greater Mapungubwe Transfrontier Conservation was created in the year 2006 when the Memorandum of Understanding formally establishing the development of the Limpopo/Shashe Transfrontier Conservation Area was signed between Botswana, South Africa and Zimbabwe in June 2006. The name was later changed to the Greater Mapungubwe Transfrontier Conservation Area (GMTFCA).



Mr Myataza is currently working as an Intern: Transfrontier Conservation Areas (TFCA), where he monitors compliance within Transfrontier Conservation Areas whilst promoting socio-economic development so as to ensure that local communities situated in those TFCAs benefit from the natural resources they provide.



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## CONTACT

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# Tlhabane township gets a clean up

By Veronica Mahlaba



**Above:** Ward councillors, residents and different stakeholders came together to clean up Tlhabane Township in Rustenburg Local Municipality.



**Above:** Community members of Tlhabane Township in Rustenburg cleaning up their streets.

An idea of a joint clean-up campaign between the Department of Environmental Affairs (DEA) and the Rustenburg Local Municipality (RLM) was presented by DEA during one of the meetings between the Municipality's Waste Management Services and DEA last year. On 02 March 2018 this idea came to life.

DEA's Control Environment Officer: Grade B, Ms Boitumelo Dlamini told us that the DEA carries a mandate of ensuring that the natural resources are preserved for the future generation, and illegal dumping is one of the major challenges the country is faced with. The DEA Directorate: General Waste came up with a concept of National Clean-Up Days whereby we encourage the municipalities to work together with their communities in cleaning up illegal dumping areas.

"The DEA encourages the Municipalities across the country to continue with clean-ups at least once a month. The reason we encourage community involvement is to ensure that they take ownership of those areas and assist the municipality in curbing the illegal dumping challenge," said Ms Dlamini.

Rustenburg Local Municipality's Waste Education and Awareness Officer, Mr Mthoko Mabuza, said that the main

**"The main reason for the Tlhabane clean-up was because of the deteriorating state of community environment due to littering and illegal dumping, and the need to raise awareness and mobilise communities to take a stand against pollution."**

reason for the Tlhabane clean-up was because of the deteriorating state of community environment due to littering and illegal dumping, and the need to raise awareness and mobilise communities to take a stand against pollution.

"The DEA National Clean-up Days concept was then adopted and aligned to the existing Safe and Clean City Campaign that takes place every Friday, with the first Friday of every month dedicated to the National Clean-up concept and to rotate throughout the jurisdiction of

RLM. The idea was welcomed and supported by RLM Management, hence the Tlhabane Clean-up Campaign," said Mr Mabuza.

The Safe and Clean City Campaign is implemented through the wards, where they are combined into eight clusters and each cluster dedicated a month with Friday declared as a Safe and Clean City Day. The ward councillors, residents and different stakeholders within each cluster lead the implementation of the campaign.

According to Mr Mabuza the #ITHATETUU was adopted to popularise the campaign and to promote cleanliness, changing people's mind set to doing things for themselves and in partnership with government. "The #ITHATETUU was announced as a reminder to individuals to take care of their environment by actively taking part in keeping it safe and clean," he explained.

Ms Dlamini explained that this is the first partnership towards waste management. "Issues of opportunities in waste were also raised by the DEA as there is also community members who are unemployed, whereby we need to make the community aware that they can collect the recyclables from their area and sell them, this is the first step towards unlocking the circular economy in that area."



# Sustainably Developing our Environment

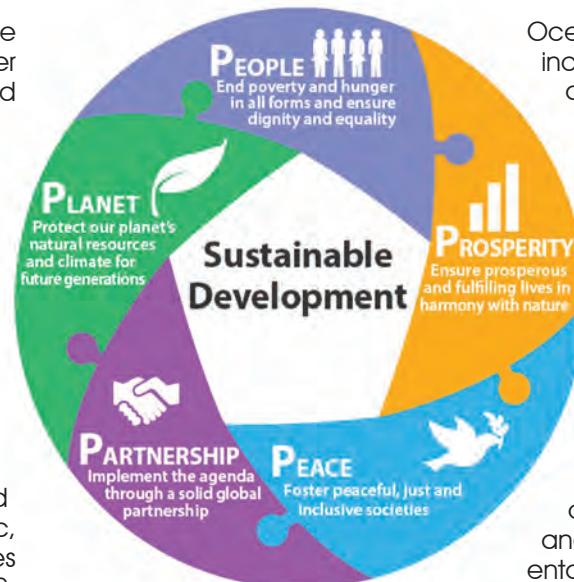
By Othusitse Mopedi

South Africa was amongst the 193 United Nations' Member States that officially adopted the Sustainable Development Goals (SDGs) - 'Transforming our World – the 2030 Agenda for Sustainable Development' - at the 70th UN General Assembly on 25 September 2015. The 2030 Agenda includes 17 Sustainable Development Goals and 169 targets.

The adoption of the SDGs was an indication and commitment by the global leaders to take a step forward in dealing with the economic, social and environmental issues over a 15 year period until 2030. The SDGs has been informed by lessons learned from the Millennium Development Goals (MDGs) and reflects South Africa's developmental priorities as stipulated in the National Development Plan (NDP).

As explained extensively in the previous Environment Quarterly published in December 2017 pg. 12-13 under the title "Working Together Towards Sustainable Development Goals", The Department of Environmental Affairs is responsible for 4 specific Sustainable Development Goals. These four SDGs are adhered to through engaging nationally and internationally on the multi-lateral environmental agreements / conventions and forums.

The implementation of Goal 12 helps to achieve overall development plans, reduce future economic, environmental and social costs, strengthen economic competitiveness and reduce poverty. The NDP states that South Africa will investment in consumer awareness, green product design, recycling



infrastructure and waste to-energy projects results in significant strides to becoming a zero-waste society. The Department of Environmental Affairs as the custodian for environmental management is mandated to ensure a safe and healthy environment that is not harmful to the well-being of the citizens of the country.

The greenhouse gas emissions from human activities are driving climate change. To address climate change, countries adopted the Paris Agreement at the COP21 in Paris in 2015. The NDP stipulates that by 2030, South Africa would have transitioned to an environmentally sustainable, climate-change resilient, low-carbon economy and just society. The responsibility of the

Department of Environmental Affairs is to improve air and atmospheric quality, lead and support, inform, monitor and report efficient and effective international, national and significant provincial and local responses to climate change.

Oceans provide key natural resources including food, medicines, biofuels and other products. The UN Environment Programme estimates the cumulative economic impact of poor ocean management practices is at least US\$200 billion per year. The NDP emphasises that South Africa needs to strengthen the resilience of its society and economy to the effects of climate change. Whereas, the Department of Environmental Affairs role is particularly focused on marine protection services and ocean governance, which entails the protection of the ocean environment from all illegal activities and promotion of its multiple socio-economic benefits.

Biodiversity delivers multiple services from local to global levels, and South Africa is one of the megadiverse countries globally. Deforestation and forest degradation results in loss of habitat for all species, a decrease in freshwater quality, an increase in soil erosion, land degradation and higher emissions of carbon into the atmosphere. The NDP emphasises that South Africa will ensure policy and regulatory frameworks are created for land use, to determine the environmental and social costs of new developments and ensure the conservation and restoration of protected areas. The role of the Department of Environmental Affairs is to ensure the equitable and sustainable use, conservation, management and the restoration of this resource base as well as to mitigate threats to them as a basis for sustainable and inclusive socio-economic development.



Ms Othusitse Mopedi is a Bursar serving with the Directorate: International Sustainable Development and Trade. She joined the organisation in 2017 as an intern after completing her Honours Degree and currently pursuing her Master's Degree. Her key responsibilities include researching and monitoring of SD Progress, publishing of articles, report writing and coordination on Post-Rio+20 Areas.



# Environmental Management Inspector

By Gaopalelwe Moroane

In this quarter of the Environment Quarterly, we look at the work of the Green Scorpions. Ms Pamella Ntuli works as an Environmental Management Inspector "Green Scorpion" at the Mpumalanga Department of Agriculture, Rural Development and Land Affairs.

The Green Scorpions are a network of environmental compliance and enforcement officials from national, provincial and municipal government, who all share the same legislative powers and duties in terms of the National Environmental Management Act (NEMA) and operate across the county. They have a broad legal mandate that covers environmental compliance and enforcement in the green (biodiversity/protected areas), brown (pollution, waste, impact assessment) and blue (integrated coastal management) sub-sectors. These EMIs are tasked with ensuring the implementation of, and adherence to, specific pieces of national environmental legislation. Pamella shares more on her work as a Green Scorpion.

### What education requirements or licenses are needed for your career?

A degree in Environmental Science or Management, LLB and Policing. I have an LLB degree, Diploma in Administrative Justice, Litigation, Environmental law and I am currently doing my Masters in Environmental Management.

### How long have you been working as an EMI?

Since 2006.

### What inspired you to venture into this career path?

During my studies at the University of the Western Cape, I did Environmental Law as an optional course but I became more attached to environmental issues. We were very few students in my class at that time but I saw an opportunity for myself in this career path.

### What are the duties that are most often and expected of you and how do you manage keeping abreast of them?

All duties assigned to EMIs are important and inter-related as we attend to complaints, monitor and investigate. In every situation, you must gather enough evidence as that might compromise the success of your case. You must also be able to advise on enforcement actions so your evidence becomes part of the administrative or criminal enforcement should criminal enforcement be instituted.

### What is the most rewarding and challenging part of what you do?

The most rewarding part of my job is compliance achievement for a sustainable environment and the challenging part is a lack of cooperative governance, the constant amendment of environmental laws and regulations which confuses EMIs and regulated communities. Also the reluctance to prosecute environmental cases and the lack of knowledge and understanding of environmental laws within our communities.



Above: Mpumalanga Department of Agriculture, Rural Development and Land Affairs EMI, Ms Pamella Ntuli.

Would you choose this career if you could make the decision again?

I definitely would. Dealing with complex cases keeps me awake and challenges my thinking. It makes me want to learn every day.

### What (if anything) would you do differently?

I would join prosecution in order to prosecute or adjudicate environmental cases. I think I would do justice with the vast knowledge that I have acquired since 2006 and the fact that I was a prosecutor prior my current employment for a period of five years.

### What advice would you give to someone who is interested in pursuing a career as an EMI?

I would say be bold and firm in taking decisions, expect to be criticised and take criticism positively. Be eager to learn and be patient.



### About the contributor: Gaopalelwe Moroane

Gaopalelwe is an Assistant Director: Internal and External Communications in the Communications Chief Directorate of the Department of Environmental Affairs. She joined the department in 2012 as an intern after completing her studies at Rhodes University.



# DEA contributes to improving education in SA

By Veronica Mahlaba



**Above:** Learners from Boitemogelo Primary School receiving their school uniforms.



In the interest of improving education, which will ultimately contribute to the development of the community and our country, Minister Edna Molewa started the Back to School initiative. On 09 February 2018 the Department of Environmental Affairs (DEA) officials visited Boitemogelo Primary School in Hammanskraal to give back.

DEA officials handed over eco-furniture to the school in the form of 40 desks. The desks do not come with financial implications as they are provided for through the Eco-Furniture Programme (EPP) which is the DEAs Natural Resource Management Programmes and Environmental Programmes brain-child, a job creation initiative that offers opportunities to unemployed South Africans. Furniture such as the eco-desks are made out of alien invasive plants created by the EPP by utilising invasive alien plants that have taken over millions of South Africa's hectares.

Additionally the department contributed complete winter uniforms which includes track suits, shirts, socks, shoes, ties, pants, dresses for 87 learners, 32 fruit trees and 35 colour coded waste bins.

Assistant Director: Development

Communication, Campaigns and Campaigns, Ms Morwesi Ramotse from DEA explained that these initiatives do provide a platform for government to create environmental awareness and encouraging active participation and partnerships among the various stakeholders such as teachers, learners and parents to strive towards environmental protection.

"We are able to share with the learners and a few community members who were there about the mandate of the DEA. We create awareness and engage learners on topics such as waste management, climate change and rhino poaching," said Ms Ramotse.

The Principal of Boitemogelo Primary School, Mr Solomon Lehari said he was delighted about the contribution as he made a request for uniforms last year and it has come true. "We are a school that strictly wear uniforms. This will be a gain to the learners that are needy as everyone wants to look neat and clean. It will also be a surprise to parents of those learners as they are not aware of this. The desks we received will help us a lot as we had a shortage of school furniture. We are now sorted with the desks we received from DEA," said Mr Lehari.

Mr Lehari said since the school teaches learners about the importance of keeping the environment clean, they will highly utilise the bins. "It will assist us with recycling waste and keeping our school clean. We will plant the trees around the school. For us it is a great moment and a day we have been looking forward to. We really want to thank DEA. Ever since we started this process, we have been communicating with each other constantly and they have kept us abreast with each development," said Mr Lehari.

The Chairperson of the School Governing Body, Mr Michael Chauke expressed how humbled the contribution made them feel as they were chosen out of many schools who are needy. "We want to pass our gratitude to Minister Molewa and her officials for all that they have done for us. I wish that more government departments can apply to intergovernmental relations, so that we can go forward as a country," said Mr Chauke.

A young 9-year-old, Ms Lebogang Makhubela expressed that she was happy for getting a new uniform. "I am going to look pretty and presentable. At home, my mom will also be very happy."



# Minister donates game to launch Double Drift Nature Reserve

By Veronica Mahlaba



**Above:** Minister Molewa hands over the title deed to the Chairperson of Likhaya Lethu Communal Property Association, Mr Mxolisi Ngesi at Double Drift.



**Above:** Minister Molewa released zebras and hartebeest at the Double Drift Nature Reserve.

**M**inister of Environmental Affairs, Dr Edna Molewa donated 10 zebras and 20 hartebeest to launch the Double Drift Wildlife Economy Project on 07 March 2018 in the Eastern Cape. The project emphasizes the need for transformation of the biodiversity economy sector, making it inclusive of previously disadvantaged communities.

Dr Molewa explained that the Double Drift Wildlife Economy Project will unlock wildlife ranching that includes a focus on game breeding and live sales. Secondary activities associated with these include veterinary services, translocation services, fencing and infrastructure maintenance. Other wildlife activities include trophy hunting, production of biltong and other wildlife products of game meat processing, skin and hides, curios and jewellery.

"This initiative enables access to start-up game or wild animals which in itself fosters the ownership of game in the hands of communities, particularly the previously disadvantaged. It further advances the interface between communities and protected areas which in-turn contributes to promoting sustainable livelihoods through ecotourism, job creation and protection of natural and cultural heritage," said Minister.

The national environmental laws provide for the participation of communities and land owners in sustainable utilisation of natural resources like plants and animals, most of which are found here this province. In this context, the environmental authorities are working together in harmonising the policy framework and guidelines for game donation and game loans.

In 2016, the Double Drift community formed a Communal Property Association (CPA) called Likhaya Lethu CPA consisting of approximately 1 500 members. This CPA has since entered into a co-management agreement with the Eastern Cape Parks and Tourism Agency (ECPTA).

"The Department of Environmental Affairs has provided R6 million in funding to the CPA to develop a Wildlife Economy business venture on the farm Naudeshoek (1 400 hectares), which has been bought as part of the land claim settlement by the state through the Department of Rural Development and Land Reform," said Minister Molewa.

The Minister also officially handed over the title deed for the land to the Nofingxana community in Double on behalf of the Department of Rural Development and Land Reform.

Chairperson of the Likhaya Lethu CPA, Mr Mxolisi Ngesi jovially accepted the title deed from the Minister and explained how happy he is as the community has waited a long time for the day. "We were given our land and money back. This will empower the community tremendously. The game that has been donated will be sold and other activities will happen in the nature reserve which will bring money into the community. That money will be utilised by the community to develop the community."

The Double Drift community was dispossessed of residential and grazing rights as a result of 1913 Land Act to make way for the establishment of the Double Drift Nature Reserve, which forms part of the Great Fish Nature Reserve. After the arrival of democracy in 1994, the community lodged a land claim which was settled in 2012 and Likhaya Lethu Communal Property Association (CPA) was established.

Following South Africa's transition to a constitutional democracy, the country embarked on a massive land reform programme to redress inequalities perpetuated in protected areas. One component of this programme was land restitution, which enables persons who were dispossessed of land for political reasons to reclaim such land of the applicable laws governing land restitution.



## Perseverance and resilience State vs Oil Separation Services Northern Province Cc

By Grant Walters

**A**fter a long, complex investigation and trial, EMIs finally managed to obtain a conviction in the case of the State v Oil Separation Services Northern Province CC. The path to obtaining this conviction was littered with multiple challenges including a complex legislative framework, which required in-depth consideration of the impact of the submission of S24G's, the importance of offences under the Environment Conservation Act and the impact of activities that were delisted but similarly listed under the Waste Act.

Added to this was a certain amount of scepticism about the profile of the case and whether the EMIs could ever be able to secure a conviction against an operator who had unlawfully been accepting, transporting and storing waste oil without the necessary authorisations. These are adverse circumstances that would cause any ordinary EMI investigator to throw their hands up in the air and to simply give up, resulting in an individual, who had committed a serious environmental offence, to roam the streets freely. However, after a long, protracted investigation and an equally long trial, where legal counsel was changed several times, we finally managed to secure a conviction in this matter.

These are adverse circumstances that would cause any ordinary EMI investigator to throw their hands up in the air and to simply give up, resulting in an individual, who had committed a serious environmental offence, to roam the streets freely. However, after a long, protracted investigation and an equally long trial, where legal counsel was changed several times, we finally managed to secure a conviction in this matter.



In anticipation of a sentence that would not even cover the costs for this case, the investigator approached the Asset Forfeiture Unit in order to evaluate the benefits that accrued to the accused during the time that operations continued unlawfully. An ex parte application was subsequently launched in the High Court of South Africa, (Limpopo Division) and granted. This was served on the accused after sentencing proceedings.

Arguments were then eloquently made by Advocate Mashalane from the office of the NPA Assets Forfeiture Unit (Limpopo) who answered technical questions by the magistrate on environmental legislation even though he was not part of the trial proceedings. It was truly rewarding to see such a well-prepared advocate fighting in our corner!! I must further indicate that these arguments were submitted after the compilation of a voluminous affidavit by the investigator who spent many hours assisting in the drafting thereof.

During the entire proceedings I could truly comprehend the complexity of criminal investigations which

included, but was not limited to, the investigator having to assist late into the evenings/ early morning hours in order to answer last minute submissions after the State closed its case. The next step in the process is to consider the benefits of the crime which will be heard in February 2018. This is indeed ground breaking work in the waste and pollution sector and a full comprehensive analysis of this matter will be reported after these proceedings are finalised.

Finally this article would not be complete by thanking everyone who were involved and for some that had to travel long distances at times to give evidence. The officials from the Limpopo Department of Economic Development, Environment and Tourism ("LEDET"), the Department of Water and Sanitation ("DWS"), the compliance and enforcement inspectors from the national Department of Environmental Affairs and to the lead investigator; Ms Tsholo Matlou: you are absolute stars and shining examples of how perseverance and resilience can overcome seemingly insurmountable obstacles.



# Vox Pops

DEA staff members

## What do you understand about wildlife trafficking and conservation?



1

1. Ms Jolene Davis

Finance

Poaching is the killing of animals for medical purposes and all sort of things. Conservation is how nature works, plants, animals and humans work together in an ecosystem.

The concept of wildlife trafficking and conservation has drastic impact on the biodiversity food chain. Recently the practice of wildlife trafficking has increased due to the lack of humans not being well informed about the significance of biodiversity. This practice is also done under the influence of greed and poverty.



4

4. Mr Peter Lukey

Chief Policy Advisor:  
Strategic Environmental  
Intelligence

Wildlife trafficking is the killing and poaching of animals, especially endangered species due to false information and allegations.

For example, people poach pangolin believing it can heal cancer and taking any species out of the ecosystem leaves a gap, as all these animals play a significant role in nature. The protecting, preserving and sustaining of these endangered animals is then called conservation.



5

5. Ms Othusitse Petunia Mopedi

International Sustainable  
Development and Trade

Wildlife Trafficking is about endangering the life of animals that were placed in a secure area for the protection of both humans and animals for monetary purposes.

This takes place with in wildlife trade where sale or exchange of wild animal and plant resources by people takes place. This can involve live animals and plants or a diverse range of products needed or prized by humans.

Wildlife Conservation refers to the preservation of animal habitat i.e. ensuring that animals in most cases endangered are preserved for the purpose of sustainability.



3

3. Mr Rampedi Masemola

Enforcement

What I understand about Wildlife trafficking is that many wild animals are killed from Rhino and all others, poachers and traffickers work together in doing so, they destroy our conservations and wildlife.



2

2. Ms Lungile Mlambo

Environmental Protection  
Infrastructure Programmes



# Vox Pops continued

Members of the public



**1. Mr Joe Setshedi**  
Mine worker

Wildlife trafficking is the illegal capturing and removal of animals species from their natural habitat for financial gain from one location to another and even cross border at times.

Conservation is the preserving, protecting and enhance of the capacity of species, especially the ones that are threaten to extinction.



**2. Mr Sechaba Sehlapelo**

**Entrepreneur**

Wildlife Trafficking is when people steal animals and sell them illegally. Conservations is the different project that organisations create to preserve animals to make sure there do not become extinct.



**3. Mr Phillip Demetrian**  
Legal Personnel

I think wildlife and conservation is extremely important, especially to us as South Africans. As it forms a huge part of our heritage and is uniquely to South Africa, because we have wildlife that other countries do not have.

Not only does it contributes to our economy but to who we are, if we do not conserve that, then we do not conserve who are as a nation.



**4. Mr Mncedisi Khoza**  
Security Officer

Wildlife trafficking is the killing of rhinos for their horns, and conservation is keeping them safe and protecting them from being killed.



**5. Mr Bbira Quriash**  
College Lecture

Wildlife trafficking is the way of taking away wildlife animals from one place to another. Conservation is the process of maintaining and keeping wildlife animals safe.



**6. Mr Rudzani Kjalashi**

**Project Manager**

Wildlife trafficking for me is the killing and poaching of rare species, for their body parts. For example the killing of rhinos for their horns.

Conservation is the policies and procedures to protect wildlife from being killed.



**7. Refilwe Letsipa**  
Environmentalist

Wildlife trafficking has a major impact on people and natural resources and the environment for a number of reasons, one being that it affects national security.

The poaching and trafficking of things like elephant ivory and rhino horns in Africa are funding groups linked to terror.

Wildlife trafficking also undermines social standing, sustainability, incomes, revenues and livelihoods for people in some of the poorest countries of the world, as their natural resources are stolen from them by criminal syndicates that are profiting from extinction.

My understanding of conservation is the act of committing to helping society to adopt a more sustainable approach to development, one that considers and values nature at every turn. We need to conserve our healthy ecosystems and the goods and services they produce.





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