January - March: Environmental Rights are Human Rights

Environment Quarterly

EzemVelo Ngenyanga Ntathu • Mbango wa kotara • Mupo nga Kotara

Minister Molewa inaugurated as chancellor of SMU

DM leads Alexandra Park revitalisation

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

2030 NDP

2017 environment CALENDAR




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2 February	World Wetlands Day
22 March	World Water Day
23 March	World Meteorological Day
26 March	Earth Hour
22 April	Earth Day
9 May	World Migratory Bird Day
22 May	International Biodiversity Day
5 June	World Environment Day
8 June	World Oceans' Day
17 June	World Day to Combat Desertification
18 July	Nelson Mandela Day
31 July	World Ranger Day
1 September	National Arbour Day
10 – 16 September	National Parks Week
16 September	World Ozone Day
22 September	World Rhino Day
21 November	World Fisheries Day

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Editorial

Dear Valued Stakeholder,

In this edition, we celebrate the honour bestowed on the Minister of Environmental Affairs, Dr Edna Molewa as the chancellor of Sefako Makgatho University. Minister Molewa was in September last year honoured with a Doctor's Degree in Applied Sciences by the Vaal University of Technology in recognition of her continued contribution and support in the field of humanities.

We also have a word from the desk of Minister Molewa regarding the 2015-2025 National Biodiversity Strategy and Action Plan (NBSAP). National Biodiversity Strategy and Action Plan (NBSAP). The objectives of the plan include amongst others, the management of biodiversity assets and ensuring their contribution to the economy, job creation rural development, and social wellbeing is enhanced

This issue also reflects on our rights and responsibilities towards the environment, and how caring for our environment in turn benefits society. We have selected this theme in light of national Human Rights Day on 21 March, and government's positioning of environmental management and protection as a key contributor towards citizens' wellbeing and economic prosperity.

The National Development Plan 2030 states South Africa "needs to protect the natural environment in all respects, leaving subsequent generations with at least an endowment of at least equal value" while the Department of Environmental Affairs' vision is "A prosperous and equitable society living in harmony with our natural resources."

It is important to note that reference is made to terms such as endowment, value and prosperity, when the oft repeated public discourse around environment versus economic growth emerges. This can be described as an outdated talking point, as we have seen time and again that there is much value to be derived from natural resources and the innovations of the green economy, without doing so at the expense of the environment.

In 2016, scientific and mainstream news outlets were abuzz with a report that Costa Rica had managed to power the homes of 4.9 million citizens for almost 250 days, on 100% renewable energy sources consisting of a mix of wind, hydro and geothermal energy.

I recently attended an Environmental Programmes workshop in the DEA head office, on the topic of land rehabilitation. I was most fascinated by a presentation entitled "From Mining to Mielies" which presented case studies and best practise on how disused and toxic mine-dumps were being rehabilitated and used to grow corn for biofuels, amongst others.

The largest threat which these dumps pose was highlighted as threats to human health and wellbeing from poisoned water and dust, affecting nearby communities. The presentation also included strategies for mining operations to commence with the end of rehabilitation in mind, rather than only after the damage was done so to speak.

Another key development in our sector is the establishment of the Waste Bureau. Amongst its first courses of action is issuing a call for stakeholders in the waste tyre sector to register with the institution. The co-regulation work being done by government and industry in the tyre sector is of vital importance, as old tyres cannot be left to accumulate at landfill sites or be burned, as this contributes to air pollution.

The Editorial team and I thank you for taking the take time to read this edition, and engage with the issues of your environment. Environmental Rights are Human Rights, and we should all remember that rights come with responsibilities.

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Lavinia Mahlangu-Engelbrecht

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Minister Molewa inaugurated as Chancellor of Sefako Makgatho

The Minister of Environmental Afffairs, Dr Edna Molewa was on Friday 17 March 2017 inaugurated as the first chancellor of Sefako Makgatho Health Sciences University (SMU) in Ga-Rankuwa. As a newly established University by the democratic government of South Africa, SMU's governance structures are in place in ensuring that it fulfils its mandate in training Health Sciences professionals.

During her address, Chancellor Molewa said, "I envision a future SMHSU with more green spaces, parks and open areas for study. I picture non-motorised transportation becoming the norm on this campus, with well-lit and functional pathways. I see a future campus where waste management is overhauled using the latest technologies to recover, reduce, reuse and recycle waste, instead of it being sent to a dumping site."

Images: Itumeleng Motsepe

The National Biodiversity Strategy and Action Plan

Above: Minister Edna Molewa

South Africa is proud to present its second National Biodiversity Strategy and Action Plan for the period 2015 - 2025. The revision of the National Biodiversity Strategy and Action Plan indicates South Africa's commitment in aligning its priorities with the emerging issues and priorities at the global level as well as national development imperatives.

Since the first generation of the National Biodiversity Strategy and Action Plan in 2005, profound development has occurred at national and international levels, including the adoption of the National Development Plan 2030, which defines a desired destination for the country, with the emphasis on reducing poverty and inequality.

The adoption of the 2030 Sustainable Development Goals, a set of 17 goals providing benchmarks for eradicating poverty, protecting the environment and empowering people and the environment in order to achieve global sustainability, as well as the Convention on Biological Diversity's Strategic Plan for Biodiversity for 2011-2020 with its Aichi Targets, that informed this second generation of the National Biodiversity Strategy and Action Plan.

The 2015-2025 National Biodiversity Strategy and Action Plan therefore has endeavoured to integrate our country's obligations under the Convention on Biological Diversity and global development agenda into our national development and sectoral planning frameworks. The National Biodiversity Strategy and Action Plan further provides a framework for the integration of biodiversity considerations into other sectoral plans and strategies, and as such, is an important mainstreaming tool.

This revised National Biodiversity Strategy and Action Plan is based on the recognition that our country has a rich endowment of natural resources, which include its biodiversity and ecosystems. Unfortunately, we are also a developing country where the majority of the population lives in poverty. With its vision "Conserve, manage and sustainably use biodiversity to ensure equitable benefits to the people of South Africa, now and in the future", this strategic document outlines a path to ensure that we, as a country, manage our biodiversity assets and ecological infrastructure in a manner that enables the ecosystems to deliver a range of services that are essential to people and the development and growth of the economy, and therefore to continue to support South Africa's development path and play an important role in underpinning the economy. In this regard, our communities must stand as the custodians of conservation and the guarantors of our natural resources.

"This revised National Biodiversity Strategy and Action Plan is based on the recognition that our country has a rich endowment of natural resources."

The National Biodiversity Strategy and Action Plan belongs to all of us. It is thus everyone's responsibility to implement it effectively. If we can all work together in one voice, this Strategy can play a significant role in helping us to reach the 2030 Sustainable Development Goals, 2030 National Development Plan and 2020 Aichi Targets.

Better co-ordination between the different agencies responsible for managing the natural environment will create a veritable force whose aim is to conserve and sustainably utilise our natural resource base, upon which we ultimately depend for our basic needs, survival, and development. We have the responsibility to ensure that our country becomes and remains a living ark.

I would therefore like to take this opportunity to extend my appreciation to all the role-players who have provided advice and responses throughout all our processes in this regard. Together we can do more!

Dr BEE Molewa
Minister of Environmental Affairs

Executive Summary of the 2nd National Biodiversity Strategy

Above: In terms of the National Development Plan, by 2030, South Africa's transition to an environmentally sustainable, climate change resilient, low carbon economy and just society will be well under way.

Above: A common misconception is that animals die of thirst during drought when in fact most mortalities are due to starvation.

South Africa "needs to protect the natural environment in all respects, leaving subsequent generations with at least an endowment of at least equal value". The National Biodiversity Strategy and Action Plan (NBSAP) is a requirement of contracting parties to the Convention on Biological Diversity (CBD). NBSAPs set out a strategy and plan for contracting parties to fulfil the objectives of the Convention. With the adoption of the CBD's Strategic Plan for Biodiversity for 2011-2020, parties agreed to revise and align their NBSAPs to the Strategic Plan and the Aichi Targets.

The document is South Africa's revised NBSAP for the period 2015 – 2025. It identifies the priorities for biodiversity management in South Africa for this period, aligning these with the priorities and targets in the global agenda, as well as national development imperatives. South Africa is a country with a rich endowment of natural resources, which include its biodiversity and ecosystems. The diversity of these ecosystems delivers a range of services that are essential to people and the development and growth of the economy.

The NBSAP outlines a path to ensure the management of biodiversity assets and ecological infrastructure continue to support South Africa's development path and play an important role in underpinning the economy.

The vision of the NBSAP articulates the long-term goal for the state of biodiversity in the country. Six strategic objectives reflect the most pressing issues that the NBSAP seeks to address in support of the vision. Each strategic objective is broken down into a comprehensive set of outcomes, which are the priorities for the strategic objective. Each outcome is then addressed through a number of activities.

Vision of the NBSAP:

Conserve, manage and sustainably use biodiversity to ensure equitable benefits to the people of South Africa, now and in the future.

Strategic objectives:

1. Management of biodiversity assets and their contribution to the economy, rural development, job creation and social wellbeing is enhanced.

2. Investments in ecological infrastructure enhance resilience and ensure benefits to society

3. Biodiversity considerations are mainstreamed into policies, strategies and practices of a range of sectors.

4. People are mobilized to adopt practices that sustain the long-term benefits of biodiversity.

5. Conservation and management of biodiversity is improved through the development of an equitable and suitably skilled workforce.

6. Effective knowledge foundations, including indigenous knowledge and citizen science, support the management, conservation and sustainable use of biodiversity

The vision of the NBSAP articulates the long-term goal for the state of biodiversity in the country. Six strategic objectives1 reflect the most pressing issues that the NBSAP seeks to address in support of the vision. Each strategic objective is broken down into a comprehensive set of outcomes, which are the priorities for the strategic objective. Each outcome is then addressed through a number of activities

Indicators and targets have been identified at the outcome level. As far as possible, the indicators and targets have been drawn from existing national or organizational strategic plans in South Africa. This has served two functions. While serving as a means to track progress towards implementing the NBSAP, the indicators and targets also enable alignment between the NBSAP and South Africa's development imperatives. This has ensured that the NBSAP is firmly integrated and aligned with the strategic priorities and plans of major role players in South Africa and therefore represents a common vision and plan for biodiversity management.

The preparation, coordination and monitoring of the NBSAP is led by the Department of Environmental Affairs.

The implementation of the NBSAP will be coordinated and monitored through the existing intergovernmental and sectoral coordination structures.

The NBSAP is available as a pdf from the Department of Environmental Affairs website, at the following shortened link: http://bit.ly/2m7R7XT

Above: South Africa is the third most biologically diverse country in the world after Brazil and Indonesia. The Department of Environmental Affairs, working together with other government departments and entities is committed to ending the crime of rhino poaching in South Africa and regularly releases updates on the state of rhino poaching in South Africa.

Tyre industry stakeholders to register with the Waste Bureau

By Lavinia Engelbrecht

Waste tyres remain amongst one of the most problematic waste streams which require appropriate management, as the improper disposal thereof has a negative impact on human and environmental health. The Department of Environmental Affairs has published a request for all relevant role players within the approved Integrated Industry Waste Tyre Management Plan (IIWTMP) to register with the newly established Waste Bureau. The call for registration was issued on 14 February 2017 in five national newspapers and on the departmental website.

Government has identified the disposal of tyres at landfill sites as a matter of concern, coupled with the burning of waste tyres, which contributes to air pollution. These methods of disposal cause environmental degradation and pose a health hazard, in the form of various respiratory ailments, particularly amongst children and the elderly.

Taking this into account, the tyre sector was the very first sector in South Africa to be requested to develop an Integrated Industry Waste Management Plan (IIWMP). The IIWMP is based on the concept of co-regulation, in which government invites industry to devise and recommend means of regulating itself, with regard to the end of lifecycle of the products such industries manufacture. It is envisioned that such partnerships between government and industry will be fruitful for South Africa as a whole.

In November 2012, Minister of Environmental Affairs Edna Molewa approved the IIWTMP, which is implemented by Recycling and

About the contributor: Lavinia Engelbrecht

Lavinia Engelbrecht is the Director: Corporate Communication, and Editor-in-Chief of Environment Quarterly.
Ms Engelbrecht is a PhD candidate in Public Management, possesses a Master's degree in Public Administration (specialising Public Policy Analysis) and a Bachelor's degree in Journalism. She has been a journalist in mainstream media, and served as a writer, Chief Sub-Editor, and Communication Manager at National Government departments and a state entity.

Economic Development Initiative of South Africa (REDISA). At the time, the department estimated that about 11 million tyres were sold per year, which would essentially become 275 000 tons of waste. This figure was projected to increase by 9.6% annually.

Various individuals and organisations have since registered with this IIWTMP as either processors, transporters, depot operators or micro collectors.

The Department of Environmental Affairs (DEA) has since established the Waste Bureau in terms of section 34A (1) of the National Environmental Management Act – Waste Act, 2008 (Act No. 59 of 2008). One of its functions is to support and advise on the development and implementation of Industry Waste Management Plans. As part of this function, the Waste Bureau is setting up a database for all role players in the waste industry, which includes the Waste Tyre Industry.

The REDISA IIWTMP is the only approved Plan currently in implementation hence the Waste Bureau is thus requesting all role players who are currently registered with REDISA to register with the Waste Bureau.

The following categories should register:

- Tyre Producers (Manufacturers and Importers)
- Tyre Dealers
- Processors of waste tyres
- Transporters of waste tyres
- Depot operators/owners for waste tyres
- Micro collectors (there will be additional communication through South African Waste Pickers Association, SAWPA and municipalities to assist micro-collectors to register)

Forms for the respective groups stated above can be downloaded from: https://www.environment.gov.za/wastebureau or requested through email or telephone.

Email: Wastebureau@environment.gov.za

Telephone: 012 399 9803

The forms should then be returned to the Waste Bureau at the email address provided.

NB: Micro collectors including waste pickers should go to the waste section of their respective municipalities for registration. Alternatively they can contact the Waste Bureau offices at the details provided for further assistance.

Notes

- Only those companies/people currently registered with REDISA should register.
- There are different forms for different categories. Please ensure that the correct form is filled in for your company/ operation.
- The completed forms should be returned to the offices of the Waste Bureau using the above email address.
- For any queries or for further assistance please use the above contact details of the Waste Bureau.

CSIR and eThekwini Municipality explore the valorisation of biowaste

By Reyhana Mahomed

Above: Compost heap formation: Vegetable waste and Sugarcane Bagasse.

Above: Compost Piles.

The Council for Scientific and Industrial Research and the eThekwini municipality collaborated in a pilot project in which compost was successfully generated from municipal biowaste.

Biowaste collected through the eThekwini municipality's garbage collection service was identified and characterised by the CSIR to potentially generate products such as biogas, lactic acid and amino acids. The pilot project successfully generated compost from biowaste.

The CSIR-eThekwini collaboration is part of a broader European Union collaboration initiative – called Biowaste4SP – with the aim to develop environmentally appropriate and socio-economically feasible technologies for conversion of biowaste in developing countries.

"The first phase of the project, concluded in October 2015, saw the production of compost-derived fertilisers from two tonnes of sugarcane bagasse and vegetable waste," says Neville Tawona, University of KwaZulu-Natal PhD student, supervised by CSIR researcher, Prof Bruce Sithole.

"The CSIR's contribution was to identify and characterise biowaste collected within the municipality and some parts of the country," says Tawona. The biofertiliser was produced using different strains of microorganism. The compost was then supplied to farmers within the eTthekwini municipality.

"Food security is important for the country and the municipality," says John Parkin, eThekwini Municipality solid waste deputy head responsible for engineering, "If we can improve the quality of the soil, the quality of vegetables will also improve".

A key focus of Biowaste4SP is to pinpoint and use the right technology for the most significant raw materials identified in each of the participating five African countries: Ghana, Egypt, Kenya, Morocco and South Africa.

The objective is to generate bioethanol, biogas, biofertiliser, lactic acid, protein and amino acids from biowaste.

"These products can substitute fossil-based chemicals and energy products and turn a waste problem into a wide range of valuable products," said Tawona.

Above: Compost Inoculation (Using Microbes from ARC-Egypt and CSIR-South Africa)

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.

Turning waste into energy

By Veronica Mahlaba

Above: Participants who attended the waste-to-energy workshop.

South Africa has come up with a waste-to-energy project that will cost US$ 4.22 million which is approximately R54 million. The Department of Environmental Affairs (DEA), in partnership with the United Nations Industrial Development Organisation (UNIDO) and the Global Environment Facility (GEF) held a technical discussion workshop on this in Pretoria on 03 February 2017.

The workshop was entitled: Promoting organic waste-to-energy and other low-carbon technologies in small and medium and micro-scale enterprises (SMMEs): Accelerating biogas market development. Senior Policy Advisor: Greening Programmes and Fund from the Department of Environmental Affairs, Dr Jenitha Badul explained that the project aims to promote and accelerate the adoption of biogas as a complementary energy source to contribute to the South African energy mix as one of the renewable energy resources.

"The project was conceived soon after South Africa hosted the United Nations Framework Convention on Climate Change (UNFCCC) Seventeenth Conference of Parties (COP 17), in 2011. It is funded by the Global Environment Facility, with UNIDO as the implementing agency," explained Dr Badul.

Biogas is a mixture of gasses formed when organic matter such as biomass, manure, municipal waste and green matter etc. decomposes in the absence of oxygen (also called anaerobic digestion).

The gasses produced through this bio-digestion process are primarily Methane (CH4) and Carbon Dioxide (CO2). When methane is combusted with oxygen there is an energy release in the form of heat which can be used as process heat or converted to electricity. Biogas can be upgraded through removal of impurities such as CO2 and moisture and then compressed for use as replacement fuel in automotive engines or in industrial and domestic applications where liquid propane gas (LPG) is currently dominating.

The Industrial Development Officer in the Renewable and Rural Energy Unit of UNIDO's Energy and Climate Change Branch, Mr Alois Mhlanga explained that this type of alternative energy source is important to South Africa as the country advances in diversifying its energy mix, in line with the national Integrated Resource Plan (IRP). In addition, the cost of electricity has also been steadily increasing.

"The energy sector is heavily dependent on coal so much that approximately 85% of the Greenhouse Gas (GHG) emissions, are from the energy sector. For most SMMEs, unreliable power supply and increase in the cost of power do negatively affect overhead costs during production processes and invariably impacts on return on investments.

"We need to promote market-based adoption of integrated biogas technologies in SMMEs so as to increase productivity and competitiveness in this vital sector. By promoting the conversion of organic waste to energy initiative, the project will help SMMEs to be self-reliant in terms of electricity and heating needs," Mr Mhlanga said.

The project will be implemented over a period of four years from 2017 to 2020. There will be a focus on promoting investment in the biogas industry through the demonstration of feasibility and commercial viability of waste-to-energy technologies; strengthening of the market environment for biogas; and development of regulatory framework for grid-connected small to medium scale waste-to-energy projects.

Other key partners in the programme include the Departments of Energy, of Trade and Industry, of Small Business Development, of Science and Technology and of Agriculture Fisheries and Forestry and the South African Biogas Industry Association. The work of the project is guided by the Project Steering Committee (PSC) with members drawn from key partners and stakeholders.

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.

The Oceans Economy at work

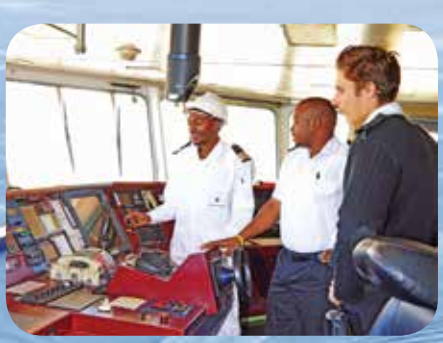
South Africa is bordered by the ocean on three sides – east, south and west. With the inclusion of Prince Edward and Marion Islands in the Southern Ocean, the coastline is approximately 3 924 km long. In 2010, the ocean contributed ~R54 billion to South Africa's gross domestic product (GDP) and accounted for approximately 316,000 jobs. However, South Africa's rich marine resources could be further leveraged to reach their full potential and optimised in a sustainable manner to boost both the economic and social development of the country.

With the vast ocean space under South Africa's jurisdiction, it could generate an estimated GDP contribution of R129-177 billion by 2033, increasing their contribution 2.5 to 3.5 times in 20 years. Accordingly, the number of jobs linked to the ocean economy could rise up to 1 million, more than the contribution of 316 000 jobs (2010).

Potential opportunities have been advanced in the following growth areas:

1. Marine Transport and Manufacturing
2. Offshore Oil and Gas
3. Aquaculture
4. Small Habours Development, and
5. Coastal and Marine Tourism

Overall governance of the ocean had been addressed under the broad umbrella of Marine Protection and Ocean Governance. All of these growth areas are anchored by Science and Technology, knowledge and innovation, the requisite Skills Development and Capacity Building initiatives.



Additional images by Media Club South Africa

Why the Oceans Economy matters

South Africa has a coastline of 3 900 km, with an Exclusive Economic Zone (EEZ) of 1.5 million square km, more than the land mass of 1.2 million square km, with a further doubling of the EEZ following the extended continental shelf claim.

South Africa has potential resources of approx. 9 billion barrels of oil and approx. 60 trillion cubic feet of gas, equivalent to 40 years and 375 years of oil and gas consumption respectively.

Small Harbours and subsequent coastal development has the potential to increase economic activities along the coast and in turn provide much needed jobs.

The Oceans economy has the potential to contribute up to R177 billion to South Africa's GDP by 2033 and create over one million jobs.

South Africa has a long coastline and inland water courses to support Aquaculture.

Coastal and Marine Tourism has the potential to further enhance economic activities and jobs along the coast.

Over 30 000 vessels pass South Africa's coast on an annual basis with 13 000 docking in our ports, providing opportunities for job creation.

The Aquaculture sector has the potential to grow significantly, increasing its production capacity and providing opportunities for local and rural economic development.

Science, knowledge generation, technology and innovation and the dedicated institutions provide the basis for the implementation of the respective sectoral initiatives.

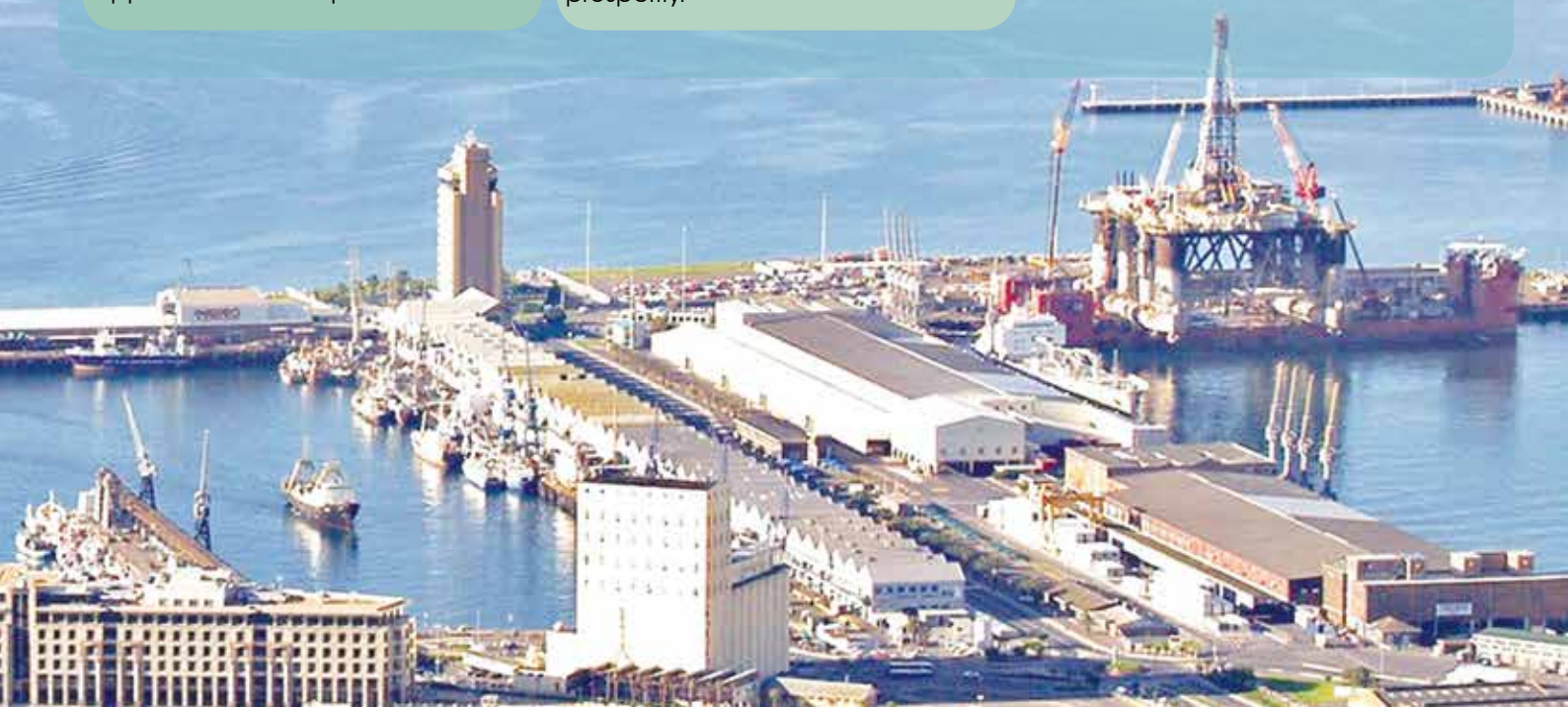
Around 80 oil rigs are estimated to be in range of the Western Cape offering significant potential for repairs in our ports.

The implementation of Marine Spatial Planning legislation will greatly enhance the orderly and coordinated use of the ocean space to the benefit of all.

A coordinated maritime skills development plan will provide the necessary training and capacity building to equip potential entrants into this sector.

300 million tonnes of cargo and 1.2 million tonnes of liquid fuel are transported along South Africa's coast, providing economic opportunities in the ports.

The establishment of offshore Marine Protected Areas will protect the valuable biodiversity which may have the potential for economic prosperity.



Working wetland miracles at Kleinspan

By Piet-Louis Grundling, Mbali Kubheka, Farai Tererai and Umesh Bahadur

Above: Aerial views of the Kleinspan wetland – the current focus of the Maputaland wetland rehabilitation project. The bush encroachment in the central area was isolated from seasonal flooding due to the berms.

Above: One of the Maputaland Project teams removing an artificial earthen berm from the bank of the Mkhuze River

South Africa is a dry country, and extreme drought conditions were experienced throughout the entire country in 2016 with Northwest, Free State, Mpumalanga, Northern Cape and Limpopo being the most affected. The nation has a pressing reason to value the water-related services that wetlands provide.

Wetlands are natural assets that provide a range of products, functions and services, free of charge, but not free of care. Healthy wetlands can clean water contaminated by mining, industrial effluent, sewage, and agricultural runoff by removing pollutants from water through various natural processes. They are also known as "flood busters", biodiversity hubs and food sources. Once considered valueless wastelands that needed to be converted to other uses in order to improve their usefulness to people, many governments around the world, including South Africa, were still providing farmers with incentives to convert their wetlands for agriculture as recently as the 1970s. These activities severely affected and dramatically altered South Africa's landscapes over the past few centuries. Studies in several areas have suggested that between 35% and 60% of South Africa's wetlands have already been lost or severely degraded.

Working for Wetlands

The Working for Wetlands (WfWet) programme rehabilitates wetlands with ecological and engineered infrastructure in order to restore their function in terms of hydrology, geomorphology and biodiversity. The focus is on wetland priority areas with the aim to address the causes of wetland degradation and carrying out the rehabilitation of wetlands in order to improve the regulation of water flows, improve water quality and increase biodiversity.

The programme's overall objective is to ensure that by 2037 there will be improved wetland functioning and water resources management with a target of 30% improvement in the regulation of seasonal flows, reduction of river siltation, and rehabilitation of wetland biodiversity.

The programme is mandated to protect, promote the wise use, and

About the contributors: Dr Piet-Louis Grundling, Dr Farai Tererai, Mrs Mbali Kubheka & Mr Umesh Bahadur

Dr Piet-Louis Grundling is the Deputy Director: Programme Implementation.

Dr Farai Tererai is the Deputy Director Planning, Monitoring and Evaluation.

Mrs Mbali Kubheka is the Assistant Director: Provincial Coordinator – KZN.

Mr Umesh Bahadur is the Director: Natural Resource Management Wetland Programmes.

rehabilitate degraded wetlands. Currently the bulk of the allocated budget goes into rehabilitation of degraded wetlands, and in the process jobs are created and skills are imparted to participants through training. Since 2004, Working for Wetlands has invested about R890 million in the rehabilitation of 1200 wetlands, creating 25 000 jobs, and generating over 2.7 million person days, of which 225 000 were in training. Commonly used interventions include gabions, concrete structures, earth structures, alien clearing, and re-vegetation. In order to increase its footprint, the

The Working for Wetlands programme is gradually moving into ensuring that land owners or users comply with relevant legislation; providing basic extension services; catchment level planning of interventions; and advocating for wetlands to not be degraded. Working for Wetlands is also beginning to target less degraded wetlands systems where simpler, smaller and cheaper interventions can be employed to optimise returns on investment.

What is a wetland?

That which actually constitutes a wetland is often not fully understood. Common misconceptions have been that wetlands must be wet, must have a river running through them, or must always be situated in low-lying areas. The definition of a wetland is much broader and more textured: they are characterised more by their unique soil properties and flora than by an abundance of water.

The National Water Act (Act 36 of 1998) defines wetlands as "land where the water table is usually at or near the surface, or land which is periodically covered with shallow water, and land which in normal circumstances supports or would support vegetation typically adapted to life in saturated soil".

Wetland degradation

It is estimated that more than 50% of South Africa's wetlands have been destroyed through drainage of wetlands for crops and pastures, poorly managed burning regimes, overgrazing, disturbances to wetland soils, vegetation clearing as well as industrial and urban development including mining activities.

Wetland systems suffer from severe erosion and sedimentation, undesirable plant species and aquatic fauna infestations, unsustainable exploitation, artificial drainage and damming, and pollution. The continued degradation of wetlands will impact on livelihoods and economic activity, as well as health and wellbeing of communities. In the absence of functional wetlands, the carbon cycle, the nutrient cycle and the water cycle are negatively affected.

In brief...

- The water we see in wetlands such asmarshes, lakes and streams on the Earth'ssurface represents just part of the watercycle, which also includes atmosphericwater (clouds, rainfall and snowfall) and groundwater (water held in soil and rocks below the surface).
- Many wetlands are directly connected to groundwater and play a vital role in regulating the quantity and quality of groundwater, which is often an important source of water for drinking and irrigation of crops.
- Unsustainable abstraction of groundwater for human use threatens the very existence of some wetlands – as well as recklessly endangering the communities that depend on that water for daily domestic use.
- Some 200 million people live in low-lying coastal regions at risk from catastrophic flooding caused by hurricanes, storm surges and tidal waves.
- The risk of coastal flooding is increasing due to global climate change.
- Wetlands provide natural frontline defences against storms and tidal waves by slowing the speed and reducing the height and force of floodwater.
- Mangroves and saltmarsh plants literally bind the shoreline together.
- Wetlands act as 'storehouses' for sediments and nutrients carried in rainwater runoff, streams and rivers.
- Dissolved nutrients, such as nitrates and phosphates from fertilizers and sewage effluent are taken up by wetland plants and stored in leaves, stems and roots, so helping to improve water quality.

It is necessary to prioritise South Africa's remaining wetlands such that those that offer valuable ecosystem services and are least impacted by current pressures or threats are offered immediate attention to avoid further loss, transformation or degradation. It is estimated that by 2025, South Africa will be one of fourteen African countries classified as "subject to water scarcity". The conservation of wetlands is fundamental to the sustainable management of water quality and quantity, and wetland rehabilitation is therefore essential to conserving water resources in South Africa, thus a strategic climate change mitigation strategy.

Wetland rehabilitation case study: Kleinspan wetland

The Kleinspan wetland, which is about 481 ha, is located in the Mkuze river floodplain within the 6 086 000 ha Mkuze river catchment area with its headwaters in the Drakensberg escarpment near the town of Vryheid. The Kleinspan wetland is part of the larger Mkuze river floodplain which is a highly dynamic complex of pans, floodplains, as well as both channelled and unchannelled valley bottom wetlands. The wetland is located within the iSimangaliso Wetland Park world heritage site. Although conservation is the focus of the iSimangaliso Wetland Park, livestock grazing is still permitted inside the Park, as well as harvesting of reeds. Economic activity in the catchment is diverse and includes rain fed subsistence farming, irrigation, afforestation and eco-tourism.

The wetland has been extensively modified for agricultural purposes. These agricultural practices degraded the wetland as it was drained and fragmented with berms preventing flooding of a large part of the wetland surface. A berm is a mounded hill of dirt constructed for directing the flow of water across a landscape. In addition, the migration of the Mkuze River channel may cause incision in the Msunduze stream which flows through Kleinspan, further isolating the wetland from floods.

Objectives set to rehabilitate the Kleinspan wetland include to:

- Breach the earthen partitioning berms to reinstate the natural flow of floodwaters across the wetland surface.
- Plug drains and infill excavated areas to prevent desiccation.
- Prevent concentration of flow in existing furrows once berms are removed.
- Deactivate incision within the Mkuze/Msunduze stream.
- Promote overbank flow from the Mkuze/Msunduze stream into Kleinspan wetland.

The Mkuze River system (river, floodplain and pans) is an important supplier of freshwater to Lake St Lucia. Due to its environmental heterogeneity, the floodplain supports an abundance of both animal and plant life that local communities utilize for natural resources such as reeds, firewood, building material, medicinal plants, fish and other products that are vital to many households. The wetland is also being used as a source of water for livestock drinking and irrigation of cultivated fields since the majority of the households in the area practice subsistence arable and cattle farming. This wetland provides an ideal area for livestock grazing, especially in winter when other areas are drier. The net result of the interventions in Kleinspan Wetland is that a large area of wetland is rehabilitated and secured from further degradation caused by streamflow modification. The Working for Wetlands intervention measures have enhanced the value of the system in terms of natural resources, cultural and tourism significance—all vital for rural life in a water scarce country.

Above: The Mkuze catchment upstream of the Kleinspan wetland (indicated as a red dot).

Above: Some of the earth berms (back ground) dissecting the Kleinspan interrupting natural flow patterns, whilst removed berms and associated revegetation are evident in the foreground.

The youth of Ekurhuleni celebrate Wetlands Day

By Gaopalelwe Moroane

Above: Esselen Park Pan where there World Wetlands Day which is one of the over 360 wetlands and pans in the City of Ekurhuleni.

Above: Learners from Oliver Tambo Primary School who won first place in the World Wetlands Day Awareness Competition.

The youth of Ekhurhuleni gathered in Esselen Park Wetlands Pan in Tembisa to celebrate World Wetlands Day hosted by the Department of Environmental Affairs, the Gauteng Provincial Department of Agriculture and Rural Development. Leading the celebrations this year was Deputy Minister of Arts and Culture and Ms Rejoice Mabudafhasi. The young and old gathered to hear and celebrate the importance of this precious part of the ecosystem.

Deputy Minister Mabudafhasi highlighted the benefits and importance of Wetlands, "In South Africa Wetlands have enormous economic, social, cultural and environmental benefits. It is however sad to note that, to date, we have lost an estimated 50% of wetlands in the country due to unsustainable use and poor land management. This is why as government, non-governmental organisations, civil society at large, communities and other stakeholders, we need to come together to educate and raise awareness in our communities about the values, wise use and importance of wetlands with the aim of protecting and conserving them for the benefit of current and future generation."

As part of this year's celebrations nine schools from the City of Ekurhuleni put together presentations that would explain to the Tembisa community and their peers the importance of preserving and protecting Wetlands under the theme, Wetlands for disaster risk reduction. Three schools, Oliver Tambo Primary School, Actonville Primary and Chief Albert Luthuli Primary made it to the top three and won R12 000, R8000 and R5000 respectively for their participation.

Since 2002, Working for Wetlands has invested R725 million in the rehabilitation of 1, 011 wetlands countrywide. This has improved or secured the health of more than 80,000 hectares of wetland area. In the process, the Programme has provided 17,575 employment opportunities, with 2.3 million person days worked to date. In line with the emphasis of the Expanded Public Works Programme (EPWP) on training, Working for Wetlands has also provided 180, 753 days of training in both vocational and life skills. Teams that form part of the Programme are made up of a minimum of 60% women, 20% youth and 2% people with disabilities.

Wetlands in South Africa

- According to the findings of the National Biodiversity Assessment of 2011, wetlands make up approximately 2.4% of South Africa's surface area.
- Wetlands provide a disproportionately high value of ecological infrastructure, providing critical ecosystem services such as water purification and flood regulation.
- Wetlands are the most threatened of all South Africa's ecosystems.
- 48% of wetland ecosystems being critically endangered.
- only 11% of wetland ecosystems being well protected.
- 71% of Wetlands are not protected at all.

About the contributor: Gaopalelwe Moroane

Gaopalelwe Moroane is a Senior Communication Officer under the sub-directorate, Editorial Services in the Department of Environmental Affairs. Prior to working for DEA she worked for short periods with the Pretoria News, Grahamstown's local paper Grocott's Mail as well as writing reviews for the National Arts Festival publication, Cue Newspaper.

Soweto learns about wetlands

By Veronica Mahlaba

Above: The Flufftail Festival exhibition was in a form of an interactive maze, with five vibrant stations aimed at teaching young and old about conserving water, wetlands and threatened waterbirds.

To celebrate World Wetlands Day, Soweto got a chance to learn about the use of wetlands. BirdLife South Africa in partnership with the Department of Environmental Affairs, Eskom, Rand Water (Water Wise) and Rare Finch Conservation Group hosted the third annual Flufftail Festival at Maponya Mall in Soweto from 31 January to 6 February 2017.

The CEO of BirdLife South Africa, Mark Anderson explained that while the recent rains have somewhat alleviated drought conditions over parts of the country, we cannot afford to be complacent about water. With the threat of global warming at our heels, it is important to raise awareness about our most critical natural resource and its importance, not only to ourselves, but also to the birds and other wildlife that depend on it for their survival.

The aim of the Flufftail Festival was to provide the surrounding community with the knowledge and tools to be water wise and to become conservationists of the wetland areas that surround them.

"Unfortunately Johannesburg still seems to be divided into traditionally 'black' and 'white' communities. This year we thought it is important to bridge this gap and to engage with people in their own surroundings. It is important to realise that all of humanity needs clean water and functional wetlands, regardless of race or colour, and in that we are all united," said Mr Anderson.

Biodiversity Officer Production: Grade A from DEA, Mr Mncedisi Cindi explained that the department partnered in the Flufftail Festival as it is the custodian and ambassador of the environment, with the mandate to give effect to the right of citizens to an environment that is not harmful to their health or wellbeing, and to have the environment protected for the benefit of present and future generations.

"The DEA came to provide environmental education, raise awareness about the importance of preserving wetlands, as well as the critically endangered white-winged flufftail bird. Close to Soweto there is a wetland. We came to Maponya Mall as we wanted to do capacity building for young children and the community at large," explained Mr Cindi.

Birdlife South Africa's Administrator: Terrestrial Bird Conservation Programme, Ms Linda van den Heever said the festival was a massive success. "We more than doubled our number of entry forms from last year. All staff members commented on how receptive the audience was to the conservation message, especially the school children who came for the puppet show and a tour through the maze. Consequently the organising committee is seriously considering having the festival at the same venue again next year," she said.

iSimangaliso: Caring for the coast

By Debbie Cooper

Above: A couple of hundred kilometres of golden shores and some of the world's highest vegetated dunes characterise the marine section of the iSimangaliso Wetland Park; part of Africa's first trans-frontier marine protected area with Mozambique.

Above: Last year a humpback whale washed up dead at iSimangaliso's Cape Vidal. It was found to have plastic in in its jaw which may have played a role in its demise.

The iSimangaliso Wetland Park World Heritage Site comprises over 220km – almost 9% – of South Africa's coastline extending from the north-eastern border with Mozambique at Kosi Bay to south of Maphelane. These shores are not only some of the most pristine, wild and undeveloped to be found anywhere, they are also the southernmost nesting grounds for endangered leatherback and loggerhead sea turtles. In its waters some 1200 species of fish are found, including coelacanths, as well as the globe's southernmost coral reefs. The Park's estuaries also preserve the most diverse mangrove forests in South Africa.

"But along with the vast expanse of shore comes the ugly reality of being a huge repository for much of the world's garbage," says iSimangaliso CEO Mr Andrew Zaloumis. Literally tonnes of flotsam and jetsam from outside of the World Heritage Site finds its way onto our beaches every year.

This material is not only unsightly, but also particularly dangerous to marine life such as turtles and whales that swallow or get entangled by these, such as floating plastic mistaken for jellyfish or as dangerous micro plastic remnants of broken down pieces.

According to studies, some types of plastic trash can take up to 450 years to decompose and if it breaks down, it turns into smaller and smaller micro plastic beads. It may even end up back on your plate some day when ingested by fish. So protecting and cleaning up our sea and beaches is not only about improving visitor experience, it is also vital for species conservation. Professor Peter Ryan, Director at the Percy FitzPatrick Institute of African Ornithology, tells us that they have sampled macro and meso-plastics on 50 South African beaches every five years since 1984, but only include KZN beaches every second survey, starting in 1994, including two sites in iSimangaliso. We look forward to seeing what these surveys reveal about the increase in waste from the ocean."

The iSimangaliso Authority is the implementer for the Department of Environmental Affairs' Expanded Public Works Programme, 'Working for the Coast', which aims to ensure that the coastal environment is conserved,

About the contributor: Debbie Cooper

Debbie Cooper is the Executive Assistant to the CEO at iSimangaliso. Her roots are in conservation and travel writing and she has been an integral part of the iSimangaliso team for eleven years. She's a writer and keen photographer, committed to the conservation of South Africa's first World Heritage Site.

Above: Keeping our coastline as clean as possible, employees in the 'Working for the Coast' programme are a familiar sight in their blue t-shirts. At Sodwana Bay, beach assistants dressed in yellow t-shirts are employed by iSimangaliso to help visitors.

protected and sustainably enhanced in line with the Integrated Coastal Management Act 28 of 2008.

According to the Chief Director of the National Department of Environment's Environmental Protection and Infrastructure Programmes, Mr Luvuyo Mlilo: "The main vision of Working for the Coast is a healthy and sustainable coastal environment that is equitably maintained and preserved for current and future generations. Categories of projects implemented under this programme include: Improvement of access to and along the coast, cleaning of the coast, maintenance of visitor facilities, removal of illegal and abandoned structures, removal of invasive alien vegetation, rehabilitation of degraded areas – such as dunes and estuaries – and monitoring of compliance."

This project, implemented via iSimangaliso's contracted 'cleaning and greening' company Katanga Property Care, provides permanent employment for 96 previously disadvantaged women and men from neighbouring communities to patrol and clean the coastal zone.

Twice a week patrol crews bag all beach litter and transport it away for disposal. In the designated 70km long Wilderness and adjacent sections, this takes place only twice a year as the zone has no public access and the only litter expected there would be that washing up from the sea. However this sea garbage has been seen to be increasing in recent years. As Mr Zaloumis notes, "We can do a massive clean-up and the next day a strong prevailing wind or tide can line the whole coast with rubbish again.

"This project, implemented via iSimangaliso's contracted 'cleaning and greening' company Katanga Property Care, provides permanent employment for 96 previously disadvantaged women and men from neighbouring communities to patrol and clean the coastal zone"

It is always going to be a challenge, while those who produce this waste do not take responsibility for it."

As the coast is a dynamic interface between land and sea, all land activities have an impact on the performance of the coastal ecosystem and iSimangaliso is not immune. As such, the department working with entities, municipalities and non-governmental organisations is exploring means and ways to educate not only the coastal but also the inland communities. This advocacy project will be anchored on recycling initiatives (inland based) so as to have less waste coming down the streams.

In addition to the permanent employees in the 'Working for the Coast' programme, 16 people are employed in the Sodwana Bay section of iSimangaliso as designated beach assistants – identifiable by their branded yellow t-shirts – a complimentary service provided to assist our visitors.

In peak holiday season, 28 extra people are employed as beach monitors at popular beach nodes to assist with general safety and awareness and help beach users experiencing difficulties. Encouraging people to dispose of their trash in provided receptacles, particularly in light of the Park's World Heritage Site status, is an important message to convey. Responsibility for the immediate stretch of beach 1km north and south of tourism lodges in the Coastal Forest section of iSimangaliso is built into the contract with the respective operators.

Above: The CEO of iSiimangaliso Wetland Park, Mr Andrew Zaloumis.

Each year in September iSimangaliso and Ezemvelo KZN Wildlife participate in the annual International Coastal Cleanup event, which serves as an opportunity to involve youth and raise awareness. iSimangaliso works with over 120 neighbouring schools annually, engaging in environmental education and coastal awareness activities.

Mr Victor Ngubane is contracted in the Coastal Forest section to oversee day to day cleaning and transport of bags to the approved waste site.

He is also in the Park's entrepreneurial programme. Speaking excitedly on the phone, he said: "This job has helped me a lot; it has connected me with a lot of people. I have built relationships with people from the Kosi Bay mouth to Sodwana Bay sections of iSimangaliso. On a monthly basis I am able to live and provide for my family. As I am speaking to you now one of my children has started College because of my work, so it's helping me enormously."

Mr Qaphelani Mfekayi – Supervisor: "For me, 'Working for the Coast' has opened opportunities: we can support ourselves, and we put our kids through school. We appreciate the opportunity from iSimangaliso to be part of such a programme. What we would love is more opportunities, in terms of training and learning about the Park, because we see and love that it has the aim of helping the communities around us".

Mr Mxolisi Gumede: "This job has helped me reach my goal of one day building my own house. I am glad that I have started with the building. I also support my family here and there, and I am really happy I am able to do both."

An example of garbage and how long it takes to decompose (Information Source: U.S. National Park Service; Mote Marine Lab, Sarasota, Florida, USA):

Glass Bottle	1 mil years
Monofilament Fishing Line	600 years
Plastic Beverage Bottles	450 years
Disposable Diapers	450 years
Aluminium Can	80-200 years
Foamed Plastic Buoy	80 years
Foamed Plastic Cups	50 years
Rubber-Boot Sole	50-80 years
Tin Cans	50 years
Leather	50 years
Nylon Fabric	30-40 years
Plastic Film Container	20-30 years
Plastic Bag	10-20 years
Cigarette Butt	1-5 years
Wool Sock	1-5 years
Plywood	1-3 years
Waxed Milk Carton	3 months
Apple Core	2 months
Newspaper	6 weeks
Orange or Banana Peel	2-5 weeks
Paper Towel	2-4 weeks

Above: Three of the 112 staff permanently employed in iSimangaliso by the national Department of Environment's 'Working for the Coast' programme are from left: Mr Victor Ngubane, Mr Mxolisi Gumede and Mr Qaphelani Mfekayi.

Contact details

For Park information, visit www.isimangaliso.com, contact info@isimangaliso.com or call +27 35 590 1633. Follow us on Twitter, Instagram, Facebook and Youtube, or visit our website at www.isimangaliso.com.
Media enquiries should be directed to Bronwyn Coppola +27 83 450 9111 or bronwyn@abetterworld.co.za.

Wetlands for disaster

What is a wetland?

The Ramsar Convention defines wetlands as "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres".

The National Water Act (Act No 36 of 1998) defines wetlands as land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

Coastal wetlands:

- Examples of coastal wetlands include: mangroves, salt marshes, estuaries, coral reefs and lagoons.
- These wetlands acts as a barrier against waves, absorb part of storm surges and protect land from erosion.

Inland wetlands:

- Examples of inland waters: rivers & floodplains, swamps/marshes, peatlands, ponds, lakes, fens
- These wetlands slow and absorb water flow, lessen damage from floods and lessen drought.

Seekoeivlei Nature Reserve Ramsar site, Free State Province (floodplain Wetland type)

How do communities in South Africa benefit from wetlands (as described by Turpie et al 2010):

- Water is collected for domestic use.
- Wetland plants are harvested for food and medicine.
- Wetland plants are harvested for building material and craft production.
- Clay is collected for building material and craft production.
- Seasonal grazing and rehydration of livestock takes place.
- Subsistence, recreational and small-scale commercial fishing is practiced.
- Crops are cultivated.

Floods in parts of Kruger National Park, Limpopo Province

Various cultural, religious and tourism related activities are associated with wetlands.

Wetlands for disaster risk reduction

What is a natural hazard?

- A natural hazard is a naturally-occurring event that could have a negative impact on humans.
- Examples of natural hazards include floods, droughts, earthquakes, tsunamis, cyclones/hurricanes, dust storms and other extreme events.

What is a disaster?

- A disaster is a severe disruption that is caused to a community or nation that result in human, material, economic or environmental losses.
- Humans can contribute to or reinforce disasters by:
  - Over abstraction of water leading to drought.
  - Draining of wetlands/De-forestation and in-filling leading to erosion and flooding downstream.
  - Draining and burning of peatlands, releasing too much carbon dioxide (CO_2).

Seekoeivlei Nature Reserve Ramsar site, Free State Province (floodplain wetland type)

Beachwood Mangrooves Nature Reserve, KwaZulu-Natal

environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

risk reduction

Wetlands that help us cope with extreme weather events

Rivers and flood plains:

Over time, rivers and streams meander to create wide, silted floodplains. If these are left intact - with their related inland lakes and swamps - they can act as a giant reservoir. During sudden floods, they can spread and store flood water over a wide area, reducing damage downstream.

Landers Reef, Kwa-Zulu Natal Province

Mangroves:

Mangroves are salt-water tolerant shrubs and trees that grow in shallow, tropical coastal waters. Their roots bind the shoreline and each kilometre of mangrove forest can reduce a storm surge by 50cm, blunting the impact of cyclones/hurricanes and tsunamis. Mangroves also store carbon dioxide, helping to fight the impact of climate change.

Coral reefs:

Coral reefs are solid structures found in shallow, tropical waters and are built by living colonies of tiny coral polyps. Home to a quarter of all marine species, coral reefs also act as offshore wave barriers and support eco-tourism livelihoods.

Key fact: peatlands store more than twice as much carbon as all of the world's forests combined, so they play an important role in mitigating some effects of climate change.

Peatlands

Peatlands are water-saturated lands containing decomposed plant material up to 30 meters deep that has accumulated over time. They cover 3% of the earth's land surface.

How can we take care of Wetlands?

Matlabas Peatland, Marakele National Park, Limpopo.
Photo by: Dr Piet-Louis Grundling

Communities:

- Do a wetlands clean-up.
- Analyse how local wetlands are being used.
  - Who depends on them?
  - Who uses what and when?
- Adopt local policies to promote long-term sustainability, for example:
  - Practice sustainable fishing & agriculture.
  - Restrict construction in wetlands.

Policy-makers

- Include wetlands in disaster planning strategies.
- Protect wetlands in flood and storm-prone areas.
- Restore degraded wetlands.
- Work with local communities/leaders to promote sustainable fishing, agriculture and tourism.
- Adopt cross sectoral policies, especially in agriculture and water, to help protect wetlands.

Individuals

- Organise or join a wetland clean-up exercise.
- Become a Wetland Ambassador to/and advocate for wetlands.
- Participate in actions to conserve and restore wetlands.
- Use non-toxic products that don't pollute wetlands.
- Use water sparingly.

MISMANAGING WETLANDS CAN MAKE THE IMPACT FROM DISASTERS WORSE

- 64% of wetlands have disappeared since 1900.
- Canalizing rivers can make floods more powerful.
- Clearing mangroves and mining coral reefs can expose coastlines to storms.
- Burning or draining peatlands releases large quantities of CO

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Ramsar

Leadership Profile:

Mr Rajesh Harrikaran

Chief Director: Information and Technology

Quality and excellence are what drive the Chief Director for Information and Technology, Mr Rajesh Harrikaran. He believes that quality and excellence should not be an option but a standard in the way leaders do things.

As the Chief Director within the Chief Operating Officer Branch, Mr Harrikaran is responsible for managing and maintaining the Information Communications Technology (ICT) support services in order to meet the operational and strategic needs of the Department. **Zibuse Ndlovu** spoke to him about being a leader in the Department of Environmental Affairs.

What, in your opinion, makes a good leader?

A good leader is someone who inspires people to be better at anything they do, at work or at home.

What do you find most challenging and on the opposite end, most rewarding, about working for the Department of Environmental Affairs?

- **Challenging:** Dwindling budgets, people dynamics, increasing administration complexities and the bureaucracy of government in general.
- **Rewarding:** The bigger picture – protecting the environment and making a difference in people's lives. The increased interest in the protection of the environment. Being a conduit (IT) to enable the Department to achieve its goals.

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

Lots of things come to mind, but it has to be raising three beautiful daughters and my education over the years.

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

Learn to be more patient, make time for family and invest more in educating yourself.

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

Going green to me means doing whatever is possible to protect the environment. Only energy saving bulbs are used at home. Plastic waste is separated from other waste and disposed of via a plastic recycling company appointed by the body corporate of the complex I live in. As far as possible, gas is used for cooking at home as well as for heating in winter. A vegetable patch is in the plans for the near future.

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

- **Humility:** - "Humility is not thinking less of yourself, it is thinking of yourself less". I believe humility is the first step to unity and that humility is contagious. A humble leader is empathetic towards other people.
- **Learning:** - A very good friend said to me I should learn something new every day, no matter how small, but it should be something new. Being in an environment (IT) that is constantly changing and evolving, it is absolutely necessary that my team and I have the required and necessary knowledge to be able to perform our duties and advise our peers and principles.
- **Quality and Excellence** – I believe in doing the right things, the right way, and the first time. Whether we are executing our duties at work or doing things at work, we should be doing in with excellence and of the highest quality. My colleagues know that this is expected of them and is mandatory.

Quick facts

Home town: Pietermaritzburg, KZN.

Role model: My Mother – hardworking, accommodating, accepting, caring and the best cook in the world.

Favourite quote/motto: "There is no workaround the hard work – embrace it" – Rodger Federer.

Hobbies: Cooking, keeping fit, cardiovascular workouts.

I am currently reading: The Secret, Rhonda Byrne.

I am currently listening to: Anything my teenage daughters play in the car, otherwise its Talk Radio 702.

Do you use Facebook or Twitter? Yes, both.

Directorate Profile: Enterprise Geospatial Information Management

By Veronica Mahlaba

Directorate: Enterprise Geospatial Information Management (EGIM).

In this quarter we take a look at the Directorate: Enterprise Geospatial Information Management (EGIM). The directorate comprises of two specialist sub-directorates, namely GIS Operations and GIS Systems. The Directorate is headed by Ms Marlanie Moodley. The Directorate EGIM falls under the Chief Directorate Integrated Environmental Management (IEM) and within the Branch Environmental Advisory Services (EAS).

Ms Moodley explains that the directorate strives to provide a one-stop entry point for Environmental Geospatial Data and Products through the EGIS website, Map Services and Viewers, on storage media or shared electronically as downloadable data.

"We create, update, maintain and share geo-referenced environmental data sets for projects with a specific focus and for which DEA acts as custodian as per strategic responsibilities. The EGIM directorate provides Geospatial Information Systems (GIS) services and support to the Department and its statutory bodies through an Enterprise License Agreement. We also work hand in hand with GITO to Ensure GIS hardware is in place to enable a stable and active GIS environment," further explained Ms Moodley.

Some of the data projects the directorate is working on are:

South African Protected and Conservation Areas Databases. (

The South African Protected Areas Database (SAPAD) and Conservation Areas Database (SACAD) is a GIS inventory of all protected and conservation areas in South Africa (SA). The SAPAD and SACAD data is maintained and updated on a regular basis and released every Quarter. DEA is custodian of this data.

Renewable Energy

The South African Renewable Energy EIA Application Data for SA is a comprehensive database on the existing applications for environmental authorisation for renewable energy projects in South Africa. This includes projects that have received environmental authorisation as well as those with EIAs still in progress or cancelled. This RE data is updated and improved on a regular basis and released every Quarter.

Landcover data

Land cover data is a crucial reference data set that informs a wide variety of activities ranging from environmental planning and protection, development planning, economic development, compliance monitoring, enforcement and strategic decision making.

The data sets were acquired by the DEA with open user license from GeoTerraImage and made available to the public through the EGIS website.

Coastal Feature Viewer

The coastal map viewer aims to provide spatial data related to the Coastal Zone to coastal zone managers and the public, without the need for GIS expertise and software.

The map provides information regarding the Coastal Public Property (CPP) and Coastal Protection Zone (CPZ) to support decision making processes focusing on access to the coast, protecting sensitive coastal ecosystems and protecting people, property and economic activities that may be affected by dynamic coastal processes.

Sod turning heralds start of conference lodge in KNP

By Reynold Thakhuli

Environmental Affairs Minister, Dr Edna Molewa, officiated a sod-turning ceremony just before the start of the building of the Skukuza Conference Lodge.

Environmental Affairs Minister, Dr Edna Molewa, officiated a sod-turning ceremony just before the start of the building of the Skukuza Conference Lodge in the Kruger National Park (KNP) on 18 February 2017.

According to South African National Parks (SANParks) CEO, Mr Fundisile Mketeni, hard work coupled with careful planning ended in the first sod being turned on the construction side of the Skukuza Conference Lodge today.

Mr Mketeni said this new development is set to raise KNP's competitiveness as one of the premier meetings and events destinations in the country.

"With this new additional accommodation, we will be able to host various sizes of events, exhibitions, conventions and meetings, while this will also cement the parks international reputation for sustainable business establishments, it will also make a real contribution to job creation during the construction phase and afterwards."

Speaking at the sod turning ceremony, Minister of Environmental Affairs, Dr Edna Molewa, said the Kruger National Park is a valued asset to our country. "Therefore any development, as long as it adapts to the key principles of conservation will without any shadow of doubt increase the contribution to the country's economy and create the much need jobs for people leaving in areas adjacent to this iconic national park."

In dispelling fears that the new lodge will increase footprint in the KNP, Minister Molewa said, SANParks is mandated in terms of the National Environmental Management: Protected Areas (Act No 57 of 2003), Section 55 (2) (h) to provide accommodation and facilities for visitors, including provision of food and household supplies.

"We are therefore, confident that this facility will not significantly increase the human footprint of the park as plans are underway to ensure that patrons to Skukuza Lodge will either be transported by charter flights or group transport like tour busses."

She further stated that currently the development of footprint in the KNP, comprising of tourist facilities, staff housing, tourists roads, support infrastructure and management roads, currently constitutes 6285 ha or 0.3% to the total of 2 000 000 ha of the park. In terms of international IUCN standards a park could be developed to 10% of its size. "This means the claims of over-development and over commercialisation of the Kruger National Park are exaggerated and unfounded."

The lodge will be developed within the existing camp footprint in an area that is already highly affected by development. Trees within the lodge footprint area will be retained as far as possible, in particular the planted baobab trees on the south western border that remain from the old warden house which will be accommodated in the design of the lodge; and there will be a buffer zone between the existing facilities and the Skukuza Conference Lodge development.

Dr Molewa said the Skukuza project together with another one planned for the Malelane section of the national park will in total create between 600 to 700 jobs from conceptualisation, construction and operational stages. "These jobs are vital in the Lowveld region where unemployment runs up to 70% of the regional population."

She said government's policy dictates that because the location of most conservation agencies is in deep rural areas with not much economic opportunities, these agencies must create alternative revenue generation options due to a fact that there are a lot of socio-economic needs government has to look after. "It is for this reason that our national parks should create products that appeal to all sections of our society – as government we are very excited to be part of this milestone."

The Skukuza Conference Lodge is expected to be a 3 Star facility with 128 rooms. The lodge will be located within the existing Skukuza Rest Camp next to the conference centre with the intension of extending itself to the conference delegates.

The full development cost of the Conference Lodge (Lodge, bulk services and staff housing) amounting to R269,5 Million, is funded from the Infrastructure Development Grant.

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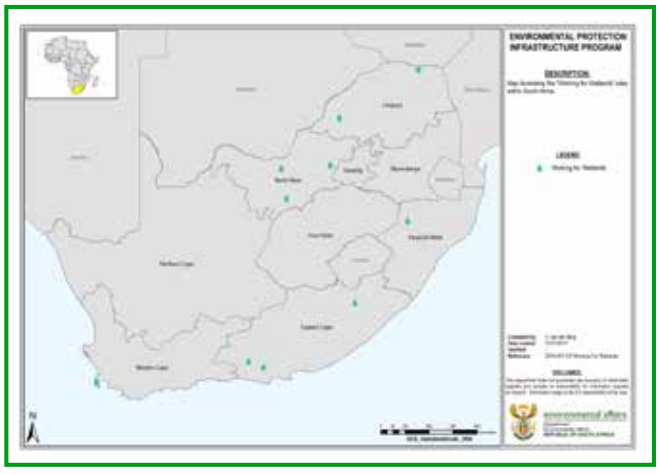
WORKING FOR WETLANDS

PROGRAMME OBJECTIVE

The objective of the Working for Wetlands programme is to protect wetlands, promote their wise-use and rehabilitate degraded ones in a manner that maximises employment creation, supports small businesses and transfers relevant and marketable skills to programme participants

CATEGORIES OF PROJECTS / ACTIVITIES

- Implement various measures to arrest erosion, trap sediment and re-saturate drained wetland areas, these include amongst other soft options such as using erosion control blankets, revegetation and a series of harder option such as weirs , drop inlets and chutes constructed from poles, gabions, rock masonry and concrete
- Plugging artificial drainage channels
- Addressing other causes of degradation, such as poor agricultural practices and invasive alien plants
- Plant propagation, re-vegetation and bio-engineering
- Building boardwalks, bird hides and interpretive signboards to enhance the recreational, tourism and educational value of rehabilitated wetlands
- Concluding contractual agreements with landowners to secure the rehabilitation work, prevent further degradation of wetlands and influence land use practices
- Provide extension services (technical and scientific/expert advice) to other government departments and related institutions, and
- Monitoring of completed rehabilitation projects



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Working for Wetlands

EXPANDED PUBLIC WORKS PROGRAMME

2030 NDP

The National Status Report on Biological Invasions in South Africa

By Tumelo Morapi

Above: SANBI board members and the Portfolio committee on environmental Affairs at the formal launch of NSRBI on the 31st January 2017, Kirstenbosch National Botanical Gardens, Cape Town.

The South African National Biodiversity Institute (SANBI) has formally launched the process to develop the first National Status Report on Biological Invasions in South Africa on 31 January 2017. The official launch of the process to develop the report took place at Kirstenbosch Botanical Gardens during the Portfolio Committee on Environmental Affairs (PCEA) oversight visit to SANBI. Present were members of the SANBI board including the Board chairperson Ms Nana Mogomola and the SANBI CEO Dr Tanya Abrahamse.

SANBI is required by the National Environmental Management: Biodiversity Act (Act 10 of 2004) and its Regulations (Alien and Invasive Species Regulations, 2014) to monitor and report regularly to the Minister on the status of all listed invasive species. In order to fulfil this mandate SANBI must submit a report to the Minister within three years of the Alien and Invasive Species regulations coming into effect, and at least every three years thereafter.

The report will be structured around four aspects, namely (1) pathways of introduction and spread;(2) the status, distribution and impacts of individual alien species; (3) the degree to which areas are invaded, and impacted upon, by alien species; and (4) the effectiveness of current control operations and regulatory interventions. A range of measurable indicators have been developed for each of these aspects which will be continually assessed and updated. The report will be finalised for publication by October 2017.

SANBI has partnered with the DST/NRF Centre of Excellence for Invasion Biology (CIB) at Stellenbosch University to prepare this first National Status Report on Biological Invasions. A reference and advisory committee comprising key stakeholders and experts has been appointed to give oversight to the process. In order to compile as comprehensive a report as possible, the SANBI-CIB team will have to rely heavily on inputs from experts around the country.

Should you wish to contribute to any aspect of the process, content and structure of the report please send us please send your contact details to Ms Monica Nguta (Invasives@sanbi.org.za and Invasives.sanbi@gmail.com).

About the contributor: Tumelo Morapi

Miss Tumelo Morapi is an intern providing research, logistical and development assistance to the Invasive Species Monitoring and Reporting directorate, especially focusing on the National Status Report.

EPIP transforms the lives of young South Africans

By Nomvuyo Mlotshwa

Above: Limpopo YES participants graduated in Professional Cookery Training.

The flow of domestic and international tourists has brought about colossal demand for hospitality services and conservation services in the biodiversity rich province of Limpopo.

In trying to meet the demand, the Department of Environmental Affairs (DEA) through the Environmental Protection and Infrastructure Programmes (EPIP) and Youth Environmental Services (YES) programme recruited more than 300 unemployed youth from the local municipalities of Modimolle, Mogalakwena and Tubatse.

These youngsters who are between the ages of 18 to 35 from the deep rural outskirts are placed in the Waterberg Biosphere Reserve where they are enrolled in a skills programme for 12 months, receiving accredited training and experiential work in Professional Cookery or Chef Training, Wildlife Security, Housekeeping and Nature Guiding, they also receive non-accredited training in Financial Management, Life Skills, HIV/Aids Awareness, Readiness for Work, First Aid, and Basic Computer skills.

This programme equips the youth to become the real agents of change and improve the quality of life within their communities through the creation of job opportunities and the execution of education training programmes.

"The YES programme has reduced poverty and unemployment rate in our community. The crime rate has also decreased because of the environmental awareness we conducted in the community during rhino awareness day," said YES programme participant Ms Marcia Hanyane. She also said the programme contributed to the cleanliness of the area.

Participants conduct community clean-up campaigns that involve waterways clearing, township renewal, litter picking, erecting of boma's, wetland rehabilitation, invasive plant removal and sustainable development as part of community service.

EPIP and the YES programme have really put a stamp in the Limpopo province as a large number of participants go on to other fields of employment upon completion of their terms. Pearl Lesinya was enrolled with YES in 2015 and said the training and experience she gained from the programme has enabled her to get placement with Ants Africa Safari as a Tour Guide. The programme is playing a big role in changing the lives of South African youths for the better, especially those corners of the country where lies the most underprivileged communities faced with opportunities, unemployment and poverty.

About the contributor: Nomvuyo Mlotshwa

Nomvuyo Mlotshwa is an Assistant Director: Programme Publicity and Liaison within the Chief Directorate: Environmental Protection and Infrastructure Programmes at the Department of Environmental Affaiirs. She markets and promotes the programme brand internally and externally.

Research :

Ntabelanga Lalini Ecological Infrastructure project

By Sarah Polonsky

The Mzimvubu catchment in the Eastern Cape is currently undergoing a series of developments. Ntabelanga Dam and Lalini Dam are both part of the ongoing Mzimvubu Water Project led by the Department of Water and Sanitation (DWS), and on completion are intended to supply potable water to 730 000 people by 2050 and irrigate about 2 900 ha of land.

There is also a small hydropower plant planned at the Lalini Dam site. In order for these dams to be filled with good quality water and to reduce sedimentation and other problems which dramatically reduce the lifespan of the dams, it is essential to have healthy upstream ecological infrastructure (EI).

Occasionally opportunities come together to create an exciting "flagship project". The Department of Environmental Affairs (DEA) Natural Resource Management (NRM) Programmes will invest in the catchments around the proposed Ntabelanga and Lalini Dams for at least the next 8 years - in a range of natural resource management and restoration programmes, also through investing in a research programme that will address the understanding of the management and restoration, and importantly, the social context of such work.

How did this come about? This is an area of known rural poverty and land degradation; one where local people could act on building a more sustainable future, based on improving natural resources (ecological infrastructure). This makes particular sense given that Ntabelanga and Lalini Dams will silt up prematurely if land degradation in the catchments around them continues.

The vision for the ambitious rehabilitation component, led by DEA, is "to support sustainable livelihoods for local people through integrated landscape management that strives for resilient social-ecological systems and which fosters equity in access to ecosystem services." The Natural Resource Management teams, with support from the Expanded Public Work Programme (EPWP), spearheads environmental improvement in various ways and creates additional work opportunities (e.g. invasive alien

About the contributor: Sarah Polonsky

Sarah Polonsky is the Deputy Director: Strategic Support for Christo Marais in the Office of the Chief Director of NRM. Her role is to provide assistance with the development of strategic projects, documentation relating to those, as well as to champion the development of a learning network within NRM and its partners.

plant clearing; land and wetland rehabilitation; appropriate fire management through the Working for Ecosystems, Working for Water, and Working on Fire programmes), and at the same time reduce sediment load going into these planned dams. Collectively, these DEA NRM teams will potentially create 558 real jobs in the green economy per year (48 in Working for Forests, 120 in Working for Ecosystems, 15 in Working on Fire and 375 in Working for Water). Over the life-span of the current project this could equate to roughly 714 000 person days, and a major injection into the local economies of the catchments.

The restoration work in conjunction with the sustainable land use management implicit in the Ntabelanga Lalini Ecological Infrastructure Project goals can be seen as an "insurance policy" for all the Department of Water and Sanitation investments (and other developments). The investments in restoring and maintain ecological infrastructure in an optimal condition will sustain benefits that will accrue from the water infrastructure benefit (crops and pastures from the irrigation, power supply from the hydro-electric plan and most importantly potable water for more previously disadvantaged communities).

This will be linked to the activities of the fledgling Catchment Management Fora (CMFs) in the area. It is intended that all these joint actions and events will be carried out in a manner that engages and involves local communities, both sensitively and with a view to their own benefits.

Another potential critical success factor is the applied research involvement, supported by many universities, especially those in the Eastern Cape. The way in which this research has to be carried out is guided by the approach in this document and will test the "comfort zones" of many researchers, but concurrently promote links between science, management and society. The key partners supporting the restoration of the ecological infrastructure in the catchment are the Department of Environmental Affairs (DEA), the Department of Water and Sanitation (DWS), the Department of Science and Technology (DST) and the Water Research Commission (WRC), as well as the Catchment Management Forum, Rhodes University, the University of Fort Hare, University of the Free State,and the Agricultural Research Council (ARC). The intention is to also enlist the help of Walter Sisulu University in the near future.

The frameworks in this report describe sensible and tested ways of carrying out interventions in a complex and changing world. This and the provisional set of research programs and interacting management actions are designed to build more resilient societies – ones which can adapt and hopefully flourish in a changing future.

Independent sediment yield calculations for the Ntabelanga Dam predict that it can silt up between 34-49 years if no sediment management is applied (Le Roux et al. 2015). Restoration efforts in the Tsitsa River catchment will extend the lifespan of the proposed dams. The exact improved life expectancy due to restoration efforts are unknown, but can be as high as 30%, and depends on the restoration effort invested and co-operation of the land users and stakeholders in the catchment. What is certain is that restoration efforts will reduce the loss of valuable soil, improve water quality, reduce water treatment costs, prolong and ensure the livelihoods of upstream and downstream land and water users. The NLEIP will also make a solid contribution towards the intergenerational equity for the future local residents, who for the first time may inherit a landscape in better condition than their forebears did.

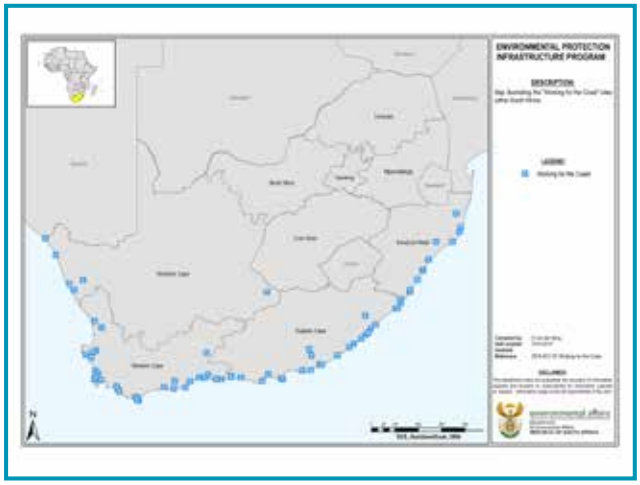
WORKING FOR THE COAST

PROGRAMME OBJECTIVE

The objective of the Working for the Coast programmes is to maintain, protect and conserve a healthy and sustainable coastal environment for current and future generations.

CATEGORIES OF PROJECTS / ACTIVITIES

- Improvement of access to and along the Coast
- Protection and conservation of coastal environments: coral reefs, salt marshes, mangrove forests, sand beaches and dunes
- Cleaning of the Coast
- Removal of illegal and abandoned structures
- Removal of invasive alien vegetation
- Rehabilitation of degraded areas
- Monitoring and compliance to the provisions of the Integrated Coastal Management Act 28 of 2008



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2030 NDP

Respect the land that feeds you

By Livhuwani Matsila

Who said that the economy and its related challenges were only for economists and those in the financial sector or government to worry about? Should we continue to be spectators and care less about the dire economic situation in which our beloved country is trapped?

No, we cannot pretend to be oblivious to the financial calamity that is forming in front of us, only to wake up when it is already too late, with no way to move beyond what would by then be an insurmountable mountain.

The dire economic situation in our country enjoins each one of us, as leaders and citizens in our own right, to make some meaningful contribution towards socioeconomic recovery and stability as we strive to create a better life for all.

So far, such efforts have been the exclusive domain and privilege of politicians, the media, academics and intellectuals. This should not be the case. There is definitely a role for each and every one of us to play, a niche in which we can contribute significantly.
My focus here, however, would be on what it is that traditional leaders can do with what is in their immediate reach and endowment.

It is disheartening that traditional leaders and community activists are reduced to spectators of little relevance in finding solutions.
In reality, traditional leaders are the custodians of the land and natural resources in rural areas where the impacts of the current economic crisis cripple poor families as jobs and economic opportunities are becoming scarcer.

There is ample scientific evidence that natural resources such as land, water, soil and biomass are critical commodities that require proper management if we are to achieve economic growth and recover from the current economic meltdown.

While government has been implementing programmes at the cutting-edge of environmental management, there are growing concerns regarding the prevalent abuse of land and natural resources across the entire South African landscape.

Above: Chiefs from different royal houses gathered at Matsila Lodge, Venda where the first workshop on natural resource management capacity building program for traditional and community leaders in rural areas was held.

Law enforcement efforts by the Department of Environmental Affairs (DEA) require dedicated support by traditional leaders in order to sustain their momentum and improve on the gains made thus far. However, it is not surprising that traditional leaders are not considered to be important role players in mainstream economic activities, as their powers in natural resource management have been eroded over a period of time.

Historical reasons include colonial destabilisation and disruption of indigenous traditions, which promoted principles of sustainable utilisation of natural resources and general respect for land. Recent reasons include the democratic government's underestimation of the role of traditional leaders in socioeconomic development.

As traditional leaders, we might have brought this enigma on ourselves as some succumbed to socioeconomic pressures and participated in the abuse of natural resources. Traditional leaders who sell land for next to nothing are abusing land, let alone that selling communal land is not in the best interest of the communities who should derive tangible benefits from it.

Our rural areas, which were once the epitome of pristine, beautiful and tranquil landscapes, are now characterised by high levels of poverty, noise, illegal dumping of waste, water pollution, overgrazing, bush encroachment and impending environmental disasters.

Our government and the private sector are particularly called upon to include traditional leaders in all initiatives for economic recovery and growth. Current efforts by the DEA to include traditional leaders in the fight against the abuse of natural resources are a step in the right direction to ensure the restoration of the authority of traditional leaders in modern society.

We must all join hands to preserve our natural resources to avoid environmental disasters that could collapse our economy, livelihoods and social fabric.

This Opinion Piece was first featured in the City Press on 19 February 2017.

Chief Livhuwani Matsila is the founder of the Matsila Community Development Trust.

Pietermaritzburg's Alexandra Park revitalised

By Gaopalelwe Moroane

Above: Environmental Affairs Deputy Minister Barbara Thomson is flanked by Umsunduzi municipality councillors, Environmental Affairs EPIP staff and the Alexandra Park beneficiaries.

EPIP's Greening and Open Space Management directorate has once again breathed life into another community by revitalising a park and making it safer and more pleasant for the Pietermaritzburg community to use. The latest project worth R12 million is Alexandra Park, in Pietermaritzburg was launched on 24 February 2017.

Speaking during the launch, Deputy Minister Barbara Thomson urged the throngs of Pietermaritzburg present to look after the park and not allow vandalisers and people who use drugs to destroy it, "I want to come back here in a few years' time and find that this park which has become a jewel for uMsunduzi Municipality to still be this beautiful,".

A total number 115 work opportunities were created from this project for Pietermaritzburg residents, 57 of them women, 74 youth and 2 people with disabilities.

A very proud Mayor of the uMsunduzi, Councillour Njilo had nothing but gratitude to not only the department but the hardworking beneficiaries who worked even through the rain to ensure that the park was as beautiful as it is. "It's a great job that you have done taking care of our park this way and I urge you to use the skills you have gained as beneficiaries and use them in communities and be entrepreneurial with them."

One of the beneficiaries, Ms Omega echoed the mayor's sentiments when she thanked the department and Qhawe investment. "We are grateful that not only were we able to put food on the table, but that we have learnt for example that when you place a flower on the ground, that you don't just throw it on the ground, but you place it carefully in the soil like you would place a baby in bed,". Implementer, Mr Tito Ndlovu from Qhawe Investments took Deputy Minister Thomson, uMsunduzi Local Municipaliaty Mayor, Councilour Njilo on a tour of the park to show them how the revitalisation of the park will be of benefit to the community of Piermaritzburg.

Some of the features of the revilatised Alexandra Park include the Percy Taylor Rockery which is beautiful site with an amphitheatre which Mr Ndlovu hopes will attract drama theatre productions as well as pergolas and a wide range of plants and flowers plants such as aloes which flower and plant lovers will enjoy.

The Children's Park features state of the art equipment that will ensure that children can play safely and in a secure area. In a light moment during her address, Deputy Minister Barbara Thomson described how as a child one of her favourite things to was to play on a slide, and that she loved it so much that even on days when the equipment wasn't available to her that she'd find any steep plain to slide down. "It makes my heart very happy to know that children now have access to these facilities that people like myself did not have access to growing up."

Above: Deputy Minister Barbara Thomson and Umsunduzi Local Municipality Mayor, Councillour Njilo officially open the revitalised Alexandra Park in Pietermaritzburg.

Above: The Children's Park features state of the art equipment that will ensure that children can play safely.

SA and Zimbabwe strengthen environmental cooperation

By Veronica Mahlaba

Above: The South African and Zimbabwe delegation that held talks on environmental cooperation.

South Africa hosted the official visit from the Ministry of Environment, Water and Climate of Zimbabwe to strengthen their ties on environmental cooperation at the Manhattan Hotel on 05 to 08 March 2017.

The Director-General of the Department of Environmental Affairs, Ms Nosipho Ngcaba expressed that the inaugural engagement between the two ministries, means that South Africa has a partner in the efforts towards protecting and conserving the environment for future generations.

"South Africa and Zimbabwe's cooperation has come a long way and grown in strength over the past few years. The establishment of the South Africa – Zimbabwe Bi-National Commission and the inaugural meeting of the BNC in Harare in November 2015 bears testimony to this. To this end, we acknowledge the contributions of our respective Ministers for their political will and strategic guidance which has laid a sound foundation for this cooperation," said Ms Ngcaba.

Ms Ngcaba further explained that the increasing global environmental challenges pose a threat to the world's realisation of Agenda 2030 on Sustainable Development and the achievement of the Sustainable Development Goals (SDGs). "There is need to find innovative ways of funding our environmental initiatives given the increasing scarcity of financial resources and otzher competing needs for international financial resources. However, we recognize that there are a number of opportunities to access financial and technical resources, including the Global Environment Facility (GEF) and the Green Climate Fund (GCF). We should look at exploring these options," she said.

The discussions between the two countries included presentations on Biodiversity Protection and Conservation, Protected Areas Management, land degradation and desertification and veld fire management initiatives and strategies, Alien and invasive species management, climate change, Air Quality Management, Chemical and Waste Management, Compliance with and enforcement of environmental legislation and policies and many other significant discussions.

Zimbabwe's Secretary for Environment, Water and Climate, Mr Prince Mupazviriho said the culmination of the meeting is a result of the two departments collaborating at different fora and at the Bi-National Commission that occurred last year in Harare.

"The meeting is meant to concretise those matters that were spoken about. We are coming up with a framework of what we want to collaborate on in terms of biodiversity and environment matters in their conservation broad sense. We are sharing ideas, notes and information so as we move on we don't have to repeat the same mistakes that the other has done. This meeting has been quite beneficial. We will look at our implementation plan and see how we can contractise after we are done," Mr Mupazviriho.

After a couple of days locked in talks, the Zimbabwe delegation took some time to tour the Environment House which won the 6 Green Star SA rating from the Green Building Council of South Africa (GBCSA). It is the first government building in South Africa to achieve a 6 Green Star SA rating. It is also the first 6 Green Star rated building in the City of Tshwane.

Legal Advisor for ZIMPARKS, Ms Rambidzi Mutetwa said it is great that the Department is practicing what they preach. "You are not just telling people what to do but are also moving towards a green economy. You have a beautiful and inspirational building."

South Africa joins the world in celebrating World Wildlife Day

By Lavinia Engelbrecht

Above: Minister Edna Molewa at the United Nations General Assembly High Level thematic discussions in celebration of World Wildlife Day. (Image source: CITES, Flickr)

Minister of Environmental Affairs, Dr Edna Molewa heeded the call of the President of the United Nations General Assembly for South Africa to participate in World Wildlife Day celebrations on 3 March 2017 in at a United Nations General Assembly High Level thematic discussions.

This years' celebration of World Wildlife Day under the theme: Listen to the Young Voices speaks equally to the present and future; not only the future of the youth, but the future of our wildlife. "The choice of the theme "Listen to the young voices" hastens the need for inclusive approaches to safeguard the survival of wildlife species, thus ensuring the future of humanity," Minister Molewa said at the thematic discussions.

"History has proven that conservation has to be about the protection and the sustainable use of plants and animals for their survival whilst ensuring the benefits to the present and future generations,"

"The role of CITES, among other UN Conventions in the Convention on Biological Diversity (CBD), the United Nations Framework Convention on Climate Change (UNFCCC) and United Nations Convention to Combat Desertification(UNCCD) remains invaluable in addressing the global challenges threatening sustainable development," she added.

Opportunities for young South Africans in conservation

"We are not naïve to the challenges of poverty, unemployment and inequality facing a significant proportion of the global community, particularly the developing countries.

Unfortunately, it is young people who will bear the brunt in the present and the future. We must therefore adopt a "youth lens" in our approaches, particularly, in the interventions to promote conservation and the fight against illegal wildlife trade," Minister Molewa said.

The People and Parks flagship programme is a key component of our community support strategy. South Africa continues to engage with communities surrounding our parks and jointly planning with them on issues of mutual interest.

The Department of Environmental Affairs (DEA) is currently implementing 30 support projects around the country in the various protected areas with a total budget of R1 334 098 200. An additional 14 projects across all provinces are in the pipeline with an anticipated budget of R352 685 216. Through the People and Parks Window of the Environment Programme, they have created 1 585 408 job opportunities.

At the 2016 People and Parks conference, the department endorsed the establishment of the Youth in Conservation Programme which seeks to mobilize for youth participation in matters of conservation. The inaugural youth workshop that conceptualised the action plan was held in January 2017.

"It is at this conference that the first ever CITES Resolution on youth was adopted calling for the empowerment and involvement of youth in conservation matters. The very same COP17 conference welcomed the youth forum for people and wildlife and more importantly the launch of the South Africa's Youth and Conservation Programme" said Dr Molewa.

Furthermore, as part of the long-term sustainability measures, the DEA embarked on a capacity building programmes targeting rhino poaching hotspot provinces, and to date we have trained 120 young people in Mpumalanga, Limpopo and North West province. Plans are in place to roll out this youth programme in the remaining provinces (40 per province = 240).

The Kids in Parks programme continues to target a minimum of 5000 youth across the country. This programme involves young people at an early age, thus creating a sense of ownership regarding conservation.

WORLD WILDLIFE DAY
3 MARCH

Youth Programme Pilot Project in Mozambique

The nature of wildlife crime is cross border, and thus our conservation efforts cannot end at home. As a result of South Africa's collaboration with Mozambique, a youth awareness programme was developed as part of the Great Limpopo Trans-frontier Conservation Areas initiative. The aim of this programme would be to develop interventions which are specifically designed to create awareness amongst the youth on the value of the natural heritage of the two countries.

Following this, community members from the villages of Mavodze, Chibotane, Macavene and Mahlaule living in, and adjacent to, the Limpopo National Park in Mozambique were taken across the border into Kruger National Park (KNP) from 22 to 27 August 2016 on a Youth Programme Pilot Project. The main aim of the pilot was to empower local communities, create awareness and promote wise use of natural resources and was developed under the guidance of the Great Limpopo Transfrontier Park Joint Management Board and its implementing agencies in Mozambique and South Africa (SANParks). This pilot was implemented by the Laureus Sport for Good Foundation in collaboration with the Peace Parks Foundation.

#youth4wildlife #YoungVoices

#DoOneThingToday

to help protect the world's wildlife!

Listen to the young voices

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UNEP

Government works on zero exposure to asbestos

By Veronica Mahlaba

Above: Some of the speakers that presented at the National Asbestos Dialogue. Back Row: Mr Obed Baloyi from DEA, Mr Trevor Mphahlele from LEDET. Front Row: Mr Matime Mabiletja from Mafefe Village, Mr Kgauta Mokoena and Dr Mpho Tshitangoni from DEA.

Seated: Mr Matjelele Phaladi took the delegates through the Concept Document on the National Asbestos Strategy.

The Department of Environmental Affairs (DEA) gathered with various stakeholders to ensure zero exposure to asbestos in South Africa. This was during the National Asbestos Dialogues held in Polokwane on 23 to 24 March 2017.

The theme for the National Asbestos Dialogue was Promoting Sustainable Management through Collaboration and Innovation. Acting Chief Director: Hazardous Waste and Licensing, Mr Kgauta Mokoena said in order to create zero exposure to asbestos in the country; promoting sustainable management of asbestos through research, development, collaboration and innovations is important. "The inclusive approach is important in managing asbestos. Let's together come with best practical solutions to address the asbestos problem. Working together we can win. " he said.

Mr Mokoena called for local government, communities, community leaders, provincial departments, industries, business, NGOs and national government to contribute towards awareness and educational campaigns. He said in order to ensure sustainability of this campaigns, Long-term Educational and Awareness Strategy need to be developed, to integrate and facilitate efforts from role players in a coordinated fashion. Inclusivity is important.

A resident and activist of Mafefe Village in Limpopo, Mr Matime Mabiletja where the asbestos problem is rife through buildings, road construction and illegal dump sites has appealed for different stakeholders to assist communities facing a similar problem with educational and awareness programmes about the asbestos material.

"I appreciate the role the Department of Environmental Affairs has played and the millions you are putting into protecting our environment. South Africa has been dialoguing for too long. Our communities need radical remediation programmes. The DEA can't continue to carry this load alone. We need other departments and companies to come on board to solve this problem. This is a huge problem, people are dying from the asbestos disease," said Mr Mabiletja.

Mr Mokoena mentioned that the DEA has developed a National Waste Strategy as a policy for waste management in the country, intended to increase the life span of disposal facility in the country and facilitate the reuse and recycling of waste. When it comes to asbestos, the waste management option available is by disposal. This consequentially and unintentionally undermines National Waste Management Strategy. The challenge is that there is no known technology available at government's disposal to promote the recycling or reuse of asbestos, let alone even technologies that ensures that asbestos is disposed in a safe manner. "Given this context I therefore challenge the inventors, experts, scientists, researchers to investigate models, strategies, technologies which will assisting in ensuring sustainable management of asbestos given the context of the country," encouraged Mr Mokoena.

The resolutions that arose from the National Asbestos Dialogue are as follows:

- The National Asbestos Strategy needs to be developed to integrate implementation of asbestos management efforts.
- Review National Norms for Disposal of Waste to landfill to ensure that asbestos waste is disposed of not only in Class A land fill site. This may be costly to disposal of asbestos in communities that are affected by asbestos while noting that operational requirements in landfill sites must improve their operations in such a way that would not lead to migration and inhalation of asbestos dust. This is because asbestos is not leaching, but airborne.
- The DEA must comment on the revised Asbestos Abatement Regulations to ensure there is alignment of legislative requirements governing asbestos management in the country.
- DEA to engage with South African Bureau of Standards to discuss approval requirements for the technologies of asbestos management.

Understanding clouds on World Meteorological Day

By Muliswa Denga

Above: Cirrostratus is a high, very thin, generally uniform stratiform genus-type of cloud, composed of ice-crystals.

Above: Cirrocumulus is one of the three main genus-types of high-altitude tropospheric clouds.

Above: Cirrus is a genus of atmospheric cloud generally characterized by thin, wispy strands.

On 23 March, the global meteorological community celebrates World Meteorological Day, which began in 1951 to mark the establishment of a United Nations (UN) body specialising exclusively in meteorology. As a member of the World Meteorological Organization (WMO), the South African Weather Service (SAWS) has taken pride in these celebrations by ensuring that the importance of meteorology and the role that it plays in our lives is recognised.

Understanding Clouds is the theme of World Meteorological Day 2017. This theme highlights the enormous importance of clouds for weather, climate and water. Clouds are central to weather observations and forecasts. Clouds are one of the key uncertainties in the study of climate change: we need to better understand how clouds affect the climate and how a changing climate will affect clouds. Clouds play a critical role in the water cycle and shaping of global distribution of water resources.

World Meteorological Day marks the launch of a new edition of the International Cloud Atlas, after the most thorough and far-reaching revision in its long and distinguished history. The new WMO Atlas is a treasure trove of hundreds of images of clouds, including a few newly classified cloud types. It also features other meteorological phenomena such as rainbows, halos, snow devils and hailstones. For the first time ever, the Atlas has been produced in a digital format and is accessible via both computers and mobile devices.

The International Cloud Atlas is the authoritative voice and comprehensive reference for identifying clouds. It is an essential training tool for professionals in the meteorological community and those working in aviation and shipping.

The International Cloud Atlas has its roots in the late 19th century. It was revised on several occasions in the 20th century, most recently in 1987, as a hard copy book, before the introduction of the internet.

Advances in science, technology and photography prompted WMO to undertake the ambitious and exhaustive task of revising and updating the Atlas with images contributed by meteorologists, cloud watchers and photographers from around the world.

To celebrate this year's World Meteorological Day, the South African Weather Service will host an event in the Western Cape, which has experienced a lot of drought and wild fires during the past few years.

The organisation will launch a Community Rainfall Station (CRS) which is an ideal solution for automated real-time rainfall monitoring in communities to support communication activities of local disaster management centres during potential flooding situation.

An automated SMS is triggered to a community leader and to a disaster management team when rainfall measurement reaches a set threshold. The CRS will go a long way in assisting the community during adverse weather conditions.

About the contributor: Musiiwa Denga

Musiiwa Denga is a Communication Officer at the South African Weather Services (SAWS).

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Feasey ordered to stop illegal construction

Isimangaliso Wetland Park Authority & others v Feasey Property Group Holdings (Pty) Ltd & others. The courts recognition of buffer zones adjacent to the Isimangaliso Wetland Park as part of a protected area under the National Environmental Management: Protected Areas Act 57 of 2003.

The iSimangaliso Wetland Park Authority ("the applicant") made an application for an interdict stopping the respondents from developing, constructing on and marketing certain sites adjacent to the Ngoboseleni Lake, which is inside the buffer zone of the Isimangaliso Wetland Park, without the necessary numerous approvals.

The applicant wrote to Feasey Property Group Holdings (Pty) Ltd and others ("the respondents") notifying them that their construction and development had commenced without the necessary approvals necessary for development in the buffer zone; and requesting that they give an undertaking that no construction and development will proceed until they were properly authorised.

Despite these notifications, the respondents continued with the construction. The respondents' arguments were, inter alia, that the matter brought by the applicants was purely procedural as they do not have jurisdiction and therefore lack locus standi to institute the proceedings since there was no harm to the environment and that there was no perceived impact caused by the respondents' developments.

The Judgment

The Court held that on the Constitutional, legislative (i.e. NEMA; NEMPAA; the Heritage Act) and the policy framework (i.e. the Strategy on buffer zones), the respondents' challenge to the applicants' jurisdiction was a disingenuous, deliberate misreading of the law.

The Court further considered that the Heritage Act and its regulations relating to the Isimangaliso Wetland Park create wide and general powers that are not limited to combating harmful activities; and that the applicant has territorial jurisdiction over the buffer zone adjacent to the Isimangaliso Wetland Park. In addition, the court recognised that NEM:PAA includes the world heritage sites and marine protected areas as protected areas; and defines 'management' 'management authority' and 'MEC' in a way that illustrates that the responsibility for managing, protecting and conserving the buffer zone is the applicant.

On this basis, the Court confirmed the interdict that prohibited the development, construction and marketing of the sites. The court ordered the respondents to rehabilitate the construction site and restore it to its pristine state.

This matter is important for EMIs as it recognises that areas surrounding protected areas, in this case, the buffer zone adjacent to the Isimangaliso Wetland Park, are formally protected in terms of NEMPAA. Since these buffer areas are protected to the same degree as the core protected area; an authority, in this case, the Isimangaliso Wetland Park Authority together with its EMIs may exercise their compliance and enforcement powers accordingly.

Photographs taken from: http://www.iol.co.za/news/crime-courts/get-off-land-holiday-home-developer-and-buyers-told-2059828

Vox Pops

DEA staff members

By Veronica Mahlaba and Gaopalelwe Moroane

Why do you think wetlands are important?

1. *Ms Lucia Mokoena*

Biodiversity & Conservation

Wetlands are one of the most important ecosystems globally because of the services they provide. These ecosystems are home to a number of species that are not only important nationally, but also at a global level. For example, the Blue Crane which is also known as a national bird uses wetlands as its habitats. Wetlands ecosystems provide massive benefits that sustain our livelihoods.

These benefits include among others, water purification, storage and supply of freshwater, flood reduction and drought control. In addition to these services, many wetlands are used for different recreational activities such as picnic, bird watching, fishing and boating

Many of our wetlands are visited by tourists which also contributes massively to the economy of the country. The iSimangaliso Wetland Park in KwaZulu-Natal is one the most important wetlands for both conservation and tourism purposes. It is therefore important that we protect, conserve and use wetlands very wisely in order for them to continue providing the ecosystem services for the benefit of both current and future generation.

2. *Mr Sabastian Adams*

Biodiversity & Conservation

Wetlands are an important part of the ecosystem providing a habitat for wild flora and fauna which include algae, fish and birds. Wetlands also provide for the following: filtering of water, mitigating adverse effects of flooding and drought as well as supporting food chains. In addition, the wetlands are used for recreational purposes and they also have cultural and religious significance.

3. *Mr Garth Barnes*

Natural Resource Management

Wetlands are unbelievably important for the healthy functioning of our landscapes. A well-known analogy is often used to describe a major component of that functioning: wetlands are to our landscape as kidneys are to our bodies. Essentially what this means is that like kidneys, wetlands sift out contaminants in water and so act as a purification mechanism. Other functions include flood control, erosion control and the support of great biodiversity.

4. *Ms Lingedzani Tshishonga*

Supply Chain Management

Wetlands are very important because they prevent flooding by holding water much like a sponge. By doing so, wetlands help to keep river levels normal, filter and purify the surface water. Wetlands also accept water during storms and whenever water levels are high. When water levels are low, wetlands slowly release water or supply during dry periods.

Wetlands are extremely important habitats of rich biodiversity, and they have an important role to play in the lives of humans and animals. Wetlands help us to recharge ground water, provide homes for animals and plants, provide food for livestock and protect biodiversity.

Vox Pops continued

Members of the public

1. Mr Eddie Maphophe Midrand

Wetlands are important because they provide a home for animals, fish and plants are made up of a wide range of livelihood. The forms of life that make up wetlands and pans are also great for tourism and the economy as they attract people from other areas.

2. Ms Avasha Papa-Singh Johannesburg

Wetlands have been used for agriculture for thousands of years. They provide a range of valuable ecosystem services, such as the provision of food and clean water, the retention of soil and the cycling of nutrients. So Save our Wetlands.

3. Ms Nomzamo Khathi Pretoria

Wetlands provide a home for many plants and animals. They help to control floods and clean dirty water. Wetlands absorb pollutants and improve the quality of water. It is important that we protect and conserve wetlands as they are a source of life, without them there would be an imbalance in the ecosystem which could be detrimental to animals, plants and humans.

4. Mr Jaco Van Deventer Pretoria

They are extremely important to the biodiversity. Currently wetlands are all in a crisis because of transformation. Our wader birds are in serious trouble because when they migrate they depend on the wetlands to feed and breed. The mountains act at a catchment area and wetlands drain, store, filter and release into our rivers which are a source of water.

5. Ms Pelisa Nesi Johannesburg

Contrary to the belief that wetlands that wetlands are useless and bring disease, wetlands provide immense value to the ecosystem. These include natural water quality improvement, flood protection, shoreline erosion control, opportunities for recreation and the general beauty that they bring. They are also factories of natural products for our use at no cost to us, the consumers.

6. Mr Dumisani Nxumalo Pretoria

Wetlands refresh and clean water in an ecosystem. They are potential sources for formation of peat which can be lignite and has the potential to form coal over a long period of time. This is due to the deposition of sediments in the wetlands. They also give an aesthetic feel to the environment.

7. Mr Bheki Mncube Johannesburg

Wetlands improve water quality. As water moves into a wetland, the flow rate decreases, allowing particles to settle out. The many plant surfaces act as filters, absorbing solids and adding oxygen to the water. Growing plants remove nutrients and play a cleansing role that protects the downstream environments.

Wetlands can aslo reduce the impacts of flooding, as they can absorb heavy rain and release water gradually. Downstream water flows and ground water levels are also maintained during periods of low rainfall

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