January – March 2013 : Championing zero emissions and sustainable use

Environment Quarterly

Tikologo ka Kotara • Mupo nga Kotara • Kwartaalikse omgewingsverslag

Working for Wetlands

SA promotes sustainable use at CITES COP 16

Zero emissions from DEA's green fleet

environmental affairs
Department :
Environmental Affairs
REPUBLIC OF SOUTH AFRIC A

2013 environment CALENDAR




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2 Februar: World Wetlands Day
23 March: World Meteorological Day
26 March: Earth Hour
22 April: Earth Day
11–12 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
24 June: Day of the Sea Farer
18 July: Nelson Mandela Day
1 Sept: National Arbour Day
16 Sept: International Day for Preservation of the Ozone Layer
22 Sept: World Rhino Day
28 Sept: International Coastal Clean-up Day
7 October: World Habitat Day

Content

ARTICLES IN ENVIRONMENT QUARTERLY THIS ISSUE : January – March 2013

Cover story

Features

Regulars

Editorial

Welcome to a new year and a brand new stakeholder publication of the Department of Environmental Affairs: *Environment Quarterly*. As we announced in the final edition of our stakeholder publication, *Bojanala*, in 2012, the Director-General, Ms Nosipho Ngcaba, approved the renaming of this publication to a title that more accurately reflects the mandate and activities of the Department of Environmental Affairs. The previous name of the publication, *Bojanala* (a Setswana word meaning 'tourism') came about when the department's mandate included environmental affairs and tourism.

Our new publication has not changed in name alone. The editorial team has been hard at work implementing improvements and incorporating our readers' suggestions. Going forward, *Environment Quarterly* will include more articles and input from line functions, so as to keep our stakeholders well informed about policy matters and key interventions.

Environmentalists, the media, donor bodies and other stakeholders can also look forward to face-to-face engagements with policy makers at the new *Environment Quarterly* Green Breakfast Briefings, to be launched in the first quarter of the new financial year. These briefings will serve as a platform to discuss pertinent environmental issues of the day with key thought leaders at the heart of department's machinery.

In this edition, we lead with the launch of the department's zero-emission electric vehicle programme. The Minister of Water and Environmental Affairs, the Honourable Edna Molewa, joined by her counterpart, the Minister of Energy, the Honourable Dipuo Peters, unveiled a fleet of four Nissan Leaf vehicles, which will serve the needs of the department in a pilot project over the next three years. At the heart of the programme is the transition to a low-carbon and sustainable economy. Such an economy can create large numbers of green jobs, across many sectors and become an engine of development.

The Department of Trade and Industry has gazetted the Electric Vehicle Industry Strategy, which is meant to guide South Africa's investment in this emerging market (the manufacture of green vehicles). This strategy prepares for the future transition to the design and production of alternative propulsion systems. The aim is to maintain or increase South Africa's global market share in the automotive sector, while still responding to our commitment to decrease the nation's carbon footprint.

Looking abroad, this edition includes the recently concluded 16th meeting of the Conference of the Parties (COP 16) to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). CITES aims to ensure that international trade in listed species of wild animals and plants, does not threaten their survival in the wild. The COP meets every three years to consider amendments to the appendices, make recommendations to improve the effectiveness of the convention and assess the implementation of the convention. More than 70 proposals to amend the appendices were considered at COP16. South Africa's position was based on sustainable use principles for the long-term conservation of our biodiversity.

Local issues in this edition include an account of Deputy Minister Rejoice Mabudafhasi's annual Wetlands Day celebration in the Eastern Cape. We also put the spotlight on the national Working for Wetlands programme, with several case studies that illustrate how communities have supplemented their livelihoods through projects to restore and conserve wetlands.

This is all but a taste of what we have in store for you in this edition. The editorial team hopes that you find this issue educational and enjoyable. Remember to share it with a colleague and youngsters once you have read it, or recycle it. We look forward to continuing to produce a publication that reflects our mandate and departmental values of being **pro-active, passionate, people-centric**, showing **integrity** and remaining a high-**performance** department.

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Lavinia Mahlangu-Engelbrecht

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SUB-SAHARAN AFRICA
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THINK•EAT•SAVE
WORLD ENVIRONMENT
DAY 5 JUNE

Environmental Affairs leads the drive towards zero emissions

The Minister of Water and Environmental Affairs, led the launch of the department's Zero Emission Electric Vehicle Programme, to much fanfare and excitement on 26 February, at Gerotek Test Facilities in Tshwane. The programme is the first of its kind for South Africa's government, and will see the introduction of a fleet of zero emission electric vehicles, servicing the transport needs of the national department.

By Lavinia Engelbrecht

"Today we launch a ground-breaking, multi-stakeholder partnership project to pilot, test and demonstrate the feasibility and viability of electric vehicles under South African conditions," said Minister Molewa addressing the vibrant event. "This project is not only about electric cars themselves but also about what kind of supporting infrastructure, such as battery charge stations, need to be in place to enable a significant uptake and use of electric cars in the country."

Four Nissan LEAF test cars will be at the department's disposal for transporting officials at all levels, in the initial phase of the project, to be run over three years Through the introduction of the vehicles, the department hopes to inspire other government departments and corporates to follow suit.

The installation of infrastructure and a package of incentive schemes are planned for the future roll out, which will further encourage the public to see these vehicles as an environmentally responsible and comparatively cost effective means of transport, in the face of rising fuel costs.

"Therefore, although the primary partners in this project are the Department of Environmental Affairs and Nissan South Africa," said Minister Molewa, "many other partners also play an important part in making this initiative a success, including the private sector and other national and local government role-players such as the Departments of Trade and Industry, Transport, Energy, Science and Technology, municipalities, South African Revenue Services, ESKOM, other car manufacturers and suppliers."

Honoured guests at the event included Minister of Energy Dipuo Peters, who endorsed the national transition to cleaner sources of energy; City of Tshwane Councillor Petunia Mashaba, and Project Manager within Environmental Affairs Mr Mbulaheni Maseda, who has led the process of researching and securing the green cars, with the support of various stakeholders in government and the private sector.

Following the formal proceedings at the launch event, Minister Molewa and Minister Peters proudly unveiled one of the vehicles, after which guests and the media had the opportunity to test drive and experience the vehicles hands-on, at the Gerotek race track. The introduction of the zero emission electric vehicles, which are also referred

About the contributor: Lavinia Engelbrecht

Lavinia Engelbrecht is the Director: Corporate Communication, and Editor-in-Chief of Environment Quarterly. Ms Engelbrecht is a seasoned government communicator, having served as writer, Chief Sub Editor and Communication Manager for national government departments and a parastatal. Ms Engelbrecht began her career in the mainstream media as reporter, covering courts and crime, finances and diplomatic news amongst others.

Fact: A zero emission vehicle is an automobile that does not have tailpipes which release carbon dioxide and create pollutants. The emissions from oil-powered cars are not only a cause of the diminishing of the ozone layer, but also a frequent cause of lung disease. This, in addition to waning fuel supplies and increased petrol prices, has lead automobile manufacturers to begin making zero emission vehicles.

to as green cars, seeks to ensure that South Africa contributes to the reduction of environmentally harmful gases, by promoting the use of cleaner sources of fuel by the automotive industry.

In the very early days, cars were electric but their inefficient batteries gave them too small of a range to be practical. This led to the introduction of the modern internal combustion engine. This in turn led to the creation of global demand for fossil fuels. This has resulted in staggering prices, worldwide pollution, climate change, political disagreements and annual global conventions to address the negative impacts of the sector.

This traditional economic growth, with its premise of plentiful but high carbon-emitting energy, comes at a big cost to the environment. The South African government, ably assisted by its private sector, now faces a challenge to establish new types of production mechanisms. In addition, the public and private sector are working together to find new ways to produce goods and create jobs, in a manner which reduces our economy's reliance on fossil fuels for energy. This will require a smooth transition into a green economy. "The fundamental motivation for embarking on this project is the urgent need for South Africa to transition to a job creating, sustainable, low carbon and green economy as clearly outlined in the National Development Plan," explained Minister Molewa.

"This imperative is driven by our need to ensure energy security and reduce our reliance on imported oil, with its ever rising prices. It is also driven by our need to address the global climate change crisis with its disastrous economic, environmental, human health and social impacts. It is driven by our need to become an efficient and globally competitive economy. It is driven by our need to develop and adopt innovative technologies to grow new green sectors in the economy as a foundation for the creation of new and decent jobs in the economy."

Minister Molewa emphasised the historical and current role of the automotive sector, as a major carbon emitter, due to the burning of fossil fuels, including petrol and diesel. The transport sector accounts for 30% of carbon emissions in industrialised economies and about 20% worldwide. Globally, the sector is the third largest contributor to air pollution.

The global fleet has been growing at a rate of about 16 million vehicles per year since 1970 and by 2025 is expected to reach 1 billion vehicles on the road. Projections indicate that emissions from vehicles will grow significantly in line with the increasing global vehicle demand.

The automotive industry has responded to these challenges and cost drivers with the development of new energy efficient technologies and alternatives to the internal combustion engine. Globally electric vehicles have been on the rise with China, USA, Japan, Korea and Europe leading the race by launching strategies to increase the share of Electric Vehicles in their overall fleets. Leading automotive industry experts forecast 10 % of total vehicles on the road will be Electric Vehicles by 2020.

This green transition in the automotive sector presents an enormous opportunity. Currently, South Africa is the 18th largest manufacturer of vehicles

Fact: Electrical cars can be charged from any power outlet or any solar panel source, by making use of the appropriate adapter. A unique feature of the Department of Environmental Affairs' fleet of zero mission Electric Vehicles is that they are fully powered by solar energy, from a high-tech assembly of solar tracking panels housed at the department's head office, rather than power from the national grid. The solar panels powering the vehicles generate enough electricity to power the fleet back into the national grid, further incentivising the move for other government departments and ordinary citizens to consider travelling green.

Chief Director: Facilities Management Mr Mbulaheni Maseda, project manager of the department's groundbreaking, zero emissions green car programme addressing the launch.

Minister of Environmental Affairs Edna Molewa, Nissan SA General Manager Mike Whitfield, Minister of Energy Dipuo Peters, and City of Tshwane Councillor Petunia Mashaba, proudly welcoming the green car.

The charging infrastructure of the Nissan Leaf in action. The source of the electricity powering the vehicles may be mains power from the national grid, or renewable energy such as solar or wind power. DEA's vehicles will be powered by solar energy from a high tech array, installed at the head office.

in the world and represents 80% of Africa's vehicle output, but only 0,6% of the world market. Its significance to the South African economy is shown by the contribution in 2010 of 6.2 % to Gross Domestic Product and through employing more than 230 000 people in manufacturing, distribution and the retail market.

Speaking at the launch, Nissan SA Managing Director Mike Whitfield, echoed the minister's sentiment regarding a drive to a green economy which also meets the needs of our people. "We would like to ensure that as we transition to this new economic model, it is pro-poor, pro-employment and pro-development of our people and our infrastructure."

Powered by high-performance lithium-ion batteries that retain up to 80% of their initial capacity after five years of use, the batteries have a second lease of life as energy storage devices. Mr Whitfield said this opened doors to secondary-use local business opportunities for used EV batteries. LEAF drivers will have the option of home-charging or using power outlets to be established at selected Nissan dealerships and other locations in the future. Full charging will take about seven hours while a 10-minute charge on the move via a quick charger will provide an additional range of 50 km.

The landmark partnership stems from the 2011 United Nations Framework Convention on Climate Change (UNFCCC) in Durban, commonly referred to as the Conference of the Parties or COP 17, where efforts to address global warming saw the establishment of a treaty to limit carbon emissions.

"We would like to ensure that as we transition to this new economic model, it is pro-poor, pro-employment and pro-development of our people and our infrastructure."

Local and foreign media came out in their numbers to capture the excitement of the launch.

Minister Molewa and DEA's Special Advisor: Sustainable Energy, Mr Mark Gordon, were among the panel members who briefed media on the long-term benefits of the programme.

COP 16

Bangkok, Thailand 3–14 March 2013

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was adopted on 3 March 1973 in Washington, D.C.

The CITES COP meets every three years to assess the implementations of the Convention.

The COP meeting took place from 3 to14 March in Bangkok, Thailand.

COP 16 marks the 40th anniversary of CITES.

African elephant population of South Africa, Botswana, Namibia and Zimbabwe is listed on Appendix II.

CITES regulates international trade in species by including species on one of three appendices.

In 1989, CITES banned international trade in ivory.

The Hoodia plant is listed on Appendix II.

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SA champions sustainable use and offers to host CITES COP17

South Africa has offered to host the 17th Conference of Parties of the Convention on the International Trade in Endangered Species of Wild Fauna and Flora (CITES COP17) in 2016. The proposal to host the next CITES Conference of Parties in South Africa was accepted by all delegates at the closing ceremony for the 16th COP in Bangkok, Thailand. South Africa's message throughout CITES COP16 was underpinned by the government's policy of sustainable utilisation of natural resources as a biodiversity conservation tool.

By Eleanor Momberg

South Africa believes the time has come for the CITES COP to be held on South African soil. As the third most mega-biodiverse country in the world, South Africa is always ready to take on any leadership role in the conservation of biodiversity at all levels by working with different partners at national, regional and global levels. This is one of the reasons why, at this crucial time when the Convention is faced with complex trade, livelihoods and conservation issues, South Africa is ready to host the next meeting in 2016.

CITES COP16 started its work with the hosting of a Ministerial Roundtable on the combating of transnational organised wildlife and organised crime on, 4 March 2013.

It is because of adaptive management and sustainable utilisation that South Africa has such a good conservation track record. Currently, South Africa's retention of its position as the last bastion of the rhino, hosting more than 80% of the world's rhino population, serves as best practice in the world – despite increased poaching.

South Africa is a founding member of CITES. Central to South Africa's conservation model, is an undisputed record of having brought species populations to healthy recovery. Among these are the white and black rhino, which had come close to extinction almost a century ago.

South Africa's rhino population has been at the centre of international attention for the last five years. Our government, ordinary citizens, private sector (rhino owners), non-governmental organisations and the media are concerned about the plight of these animals – especially since they have become the focus of alleged international poaching syndicates. By the end of the two-week COP16, 158 rhino had been poached in South Africa since the beginning of the year. Over the same period, some successes against the scourge were gained, as 61 people – three alleged couriers and 58 alleged poachers – were arrested.

Prior to departing for CITES, Minister Edna Molewa presented the key recommendations emanating from the national consultation process relating to the rhino conservation report to Cabinet. She provided an overview of the four thematic areas that emerged during the rhino issue management process: funding, rhino conservation, safety and security, and commerce (trade).

At COP16, three rhino-related side events were conducted.

During the rhino conservation side event, participants commended South Africa for its conservation efforts and successes, and people felt that we should continue doing what we do in the interest of conservation in South Africa and other range states.

During the safety and security event, the Minister highlighted the National Joint Operations initiative set up to

Water and Environmental Affairs Minister Mrs Edna Molewa at the rhino conservation side event hosted by South Africa at CITES.

South Africa's Ambassador to Thailand, Ms Ruby Marks listens intently to a briefing on rhino conservation efforts in South Africa.

SAPS Lt General Elias Mawela (right) of the NATJOINTS briefs CITES delegates and NGOs on the safety and security measures being taken in South Africa to protect the country's rhinos. The side event was chaired by Rhino Issue Manager, Mr Mavuso Msimang (left).

About the contributor: Eleanor Momberg

Eleanor Momberg is the Rhino Communications Manager in the Department of Environmental Affairs. Ms Momberg was a member of the South African delegation, which attended the CITES 16th Conference of Parties in Bangkok, Thailand.

coordinate the war against poaching. The initial number of arrests indicate that we were only succeeding in catching those at the bottom of the pyramid. However, successes at other levels have been recorded. This is evident in the case of the Thai national who was convicted and sentenced to a prison term of 40 years for illegal trade in rhino horn.

The third rhino side event was on the issue of rhino economics. The event was the subject of robust discussion, where we shared an analysis of the markets and the rhino economic model. It became clear that the so-called consumer states have the buying power and their citizens, especially the middle class, can afford to buy the horn. The willingness to pay and willingness to buy are prevalent in these consumer states.

The chairman of the Parliamentary portfolio committee on Water and Environmental Affairs Adv Johnny de Lange addresses delegates, the media and NGO representatives at a rhino economics side event, hosted by South Africa at the Imperial Park hotel in Bangkok, Thailand.

Water and Environmental Affairs Minister, Mrs Edna Molewa, addresses nearly 200 people who attended a South African government hosted side event on the issue of rhino economics and the initiation of a process by the country to canvas views on rhino trade.

The Minister said: "The need to deal with the existing black market is inevitable and we need more dialogue at a global level to stop it. We don't have answers to this problem, but we feel that this is an area the world is reluctant to talk about."

"We are here for solutions to the problem of the increasing rhino killings," said Minister Molewa. "The South African government is investing a lot of funding on conservation and security and that liability continues to grow. It is our understanding that someone out there is creating the demand for the rhino horn. The law of supply and demand is relevant in any commodity that is tradeable and it is for this reason that we want this discussed."

However, the Minister went on to categorically state that no decision has been made by South Africa on whether to apply to CITES at COP17 to legalise trade in rhino horn or to permit the once-off sale of rhino horn stockpiles to fund conservation efforts.

The Minister explained that the consultations in Bangkok were a further step to the series of discussions held with stakeholders in South Africa last year to facilitate a common understanding of key issues concerning the protection and sustainable conservation of South Africa's rhino population. She concluded by saying that the South African government's motto *"working together we can do more",* is pertinent, and it has become clear that we all need to conserve rhino for this and future generations.

More than 2 000 delegates from 178 countries, non-governmental organisations and civil society attended COP16, and deliberated on matters relating to the effective implementation of the Convention, including the amendment of the appendices containing the species regulated in terms of the Convention. COP16 was characterised by dynamic debate on issues related to the conservation and protection of plant and animal species for future generations.

"The 40th anniversary of CITES is a critical year for the world's wildlife," said John Scanlon, CITES Secretary-General. He added that the Bangkok conference was expected to be of "great significance to the future of many species of plants and animals."

The UN Under-Secretary General and Executive Director of the UN Environment Programme (UNEP), Achim Steiner, said that as over-exploitation of the world's critical natural resource base continues, species are being placed under increased pressure. He also said that alongside many other international agreements, CITES provides a wealth of examples where countries are seizing opportunities to bring about positive environmental change with significant social and economic outcomes.

"The CITES COP meets every three years to assess the implementations of the Convention."

Over the two weeks, delegates robustly debated about how to improve the world's wildlife trade regime, taking stock of progress made in ensuring the survival of endangered species, such as the leopard, rhino, cheetah, elephant, timber species and hoodia. Representatives also decided which species were to be downlisted or uplisted on the appendices determining which species may or may not be traded under strict international controls.

In addition, a resolution was adopted that addressed matters relating to livelihoods. The resolution provides guidance on which importing and exporting nations are required to assess the impacts of their actions on poor rural communities and the species being utilised. It also provides measures that can be introduced to address any possible consequences of trade decisions, including aid.

Biodiversity and sustainable livelihoods:

the case of *Aloe Ferox* and the Tyhefu community in South Africa

Documented evidences place South Africa as the third most biologically diverse country in the world, after Indonesia and Brazil. The preliminary results of a 2013 survey conducted by the South African Department of Environmental Affairs (DEA) recorded 207 South African indigenous species as being utilised for commercial purposes. Of these species, only three accounted for 50% of all trade, while the other 204 species made up the remainder of the market. Aloe ferox, commonly known in South Africa as Cape Aloe or Bitter Aloe, is one of these three most frequently used species.

By Jones Muleso Kharika, Carina Malherbe and Preshanthie Naicker

Case study: The contribution of *Aloe ferox* to the Tyhefu community livelihoods

The Tyhefu community under the Tyhefu Traditional Council in the Peddie area of the Eastern Cape Province of South Africa, harvest sap from *Aloe ferox* plants from an area of approximately 50 000 hectares. The *Aloe ferox* harvesting project involves predominantly women and youth from the community. The contribution of utilisation of *Aloe ferox* to the livelihoods of the community of Tyhefu extends far beyond the people that are actively involved in the aloe harvesting.

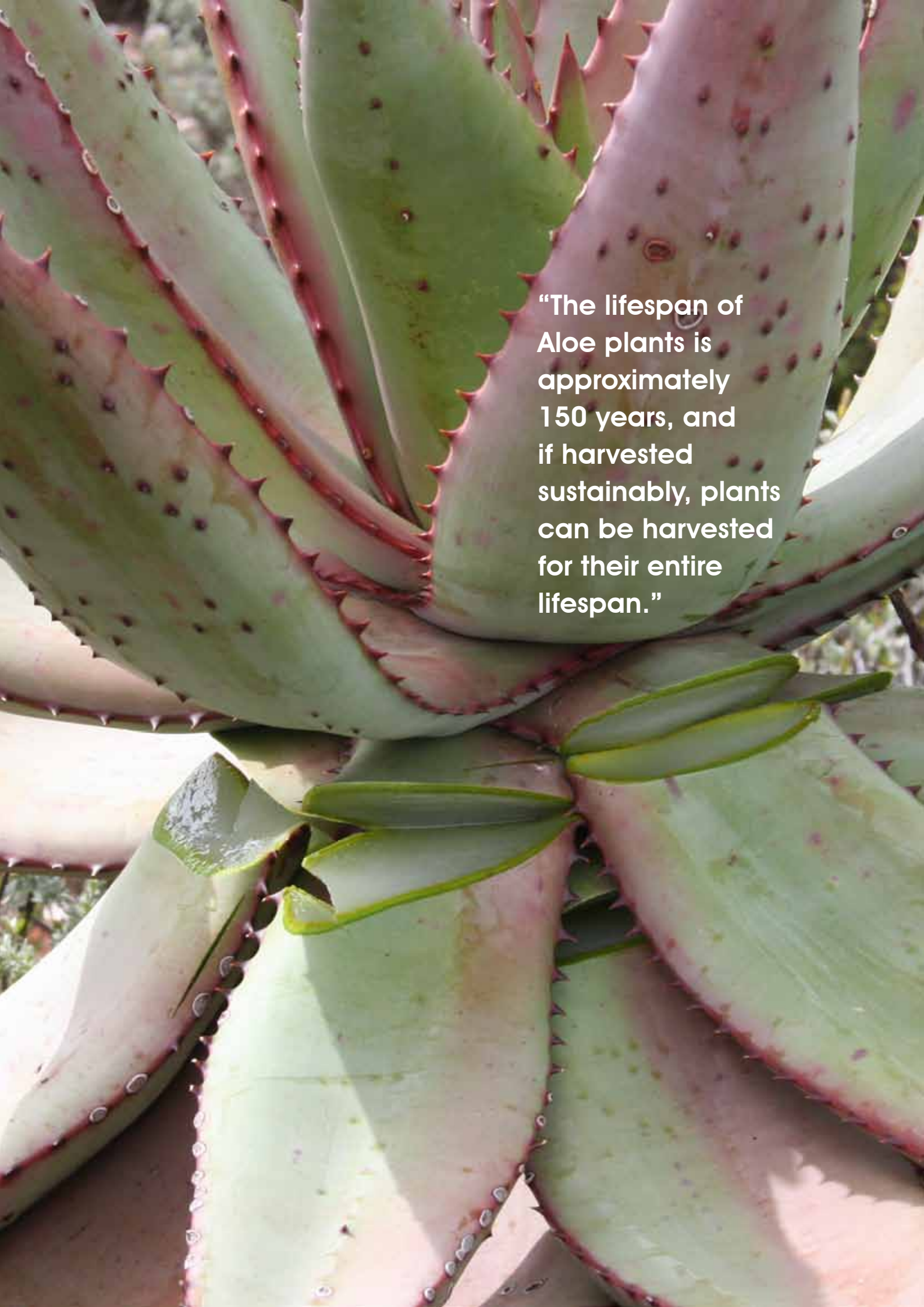
The project has been critical in sustaining local livelihoods for a rural community which had lived in a high unemployment area. There has been a marked increase in income levels to a point where people have adequate food consumption (move out of extreme poverty), and are able to pay for a minimum basket of non-food items, including clothes, housing, and school fees for children.

About the contributors: Jones Muleso Kharika, Carina Malherbe and Preshanthie Naicker

Mr Jones Muleso Kharika serves in the Capacity of Director: Resource Use within the Branch Biodiversity and Conservation of the Department of Environmental Affairs.

Carina Malherbe is the Deputy Director: Resource Economics at the national Department of Environmental Affairs, within the Chief Directorate: Biodiversity Economy and Sustainable Use.

Preshanthie Naicker coordinates the national implementation of UNEP/GEF funded projects on Bioprospecting, Access and Benefit Sharing within the Directorate: Bioprospecting and Bio-economy.



"The lifespan of Aloe plants is approximately 150 years, and if harvested sustainably, plants can be harvested for their entire lifespan."

Inspecting an aloe-tapping site at the Tyhefu community. (photo courtesy of Roy Gawar)

Aloe ferox resource management

A resource assessment will be conducted in 2013 to evaluate the current rate and intensity of utilisation of Aloe ferox in South Africa versus the available biological resource. This assessment will be used to determine the localised impact of harvesting on the plants and will be used as a basis to develop a species management plan to ensure sustainable utilisation. The species management plan will address amongst other things, illegal harvesting and trade, support for community initiatives for biotrade and processing, and the drafting of management and harvesting guidelines.

In 2012/2013 project participants generated an average monthly income of approximately R2 400 (US$240) from the project. Current saving levels of project members are sufficient to meet basic livelihood outcomes in the medium term, particularly where technology jumps are needed such as mobile communication means for speedy conclusion of both personal and project transactions. So far, the effect of sustainable utilization of *Aloe ferox* as a CITES-listed species, which enables the Tyhefu community to generate income and cultivate additional jobs to sustain livelihoods, is encouraging.

As a livelihood strategy, the project has helped the community to tackle issues of poverty, and has ensured that opportunities are available for people to exercise livelihood options that best match their desired outcomes. In addition to creating an important financial asset base, this project has also facilitated establishment of mechanisms in which social support systems of the project members are strengthened in pursuance of sustainable livelihoods.

Biodiversity as a cornerstone for the green economy

The life history of Aloe ferox makes it ideal for sustainable utilisation and contribution to the Green Economy. It is one species that can contribute to job creation and poverty alleviation in rural areas through aloe tapping as a primary and/or secondary household income. The lifespan of Aloe plants is approximately 150 years, and if harvested sustainably, plants can be harvested for their entire lifespan.

Aloe ferox is distributed throughout the Western Cape, Eastern Cape, Free State and KwaZulu-Natal Provinces of South Africa, and it also occurs in Lesotho. Aloe bitters from the Western Cape Province, particularly the Mossel Bay, Riversdale, Herbertsdale, Albertinia and Van Wyksdorp areas, are in world demand due to their high aloin content. Prices for bitters from these areas are higher than those from other districts or countries producing crystalline bitters. Furthermore, the gel can be extracted more economically from Aloe ferox leaves than from Aloe vera. This gives South Africa an advantage in international markets.

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"The contribution of Aloe ferox to the livelihoods of the community extends far beyond the people involved in the aloe harvesting."

A community member busy with the process of Aloe tapping. (photo courtesy of Ulrich Feiter)

An *Aloe Ferox* field. (photo courtesy of Ulrich Feiter)

Aloe Ferox harvesting. (photo courtesy of Ulrich Feiter)

Aloe ferox is commonly known as the Cape aloe or bitter aloe.

Wetlands

improve water quality and assist in preventing floods - Deputy Minister

"Wetlands are one of our most precious water sources. We need to conserve them by preventing pollution and keeping them clean," the Deputy Minister of Water and Environmental Affairs, Ms Rejoice Mabudafhasi, said at this year's celebration of World Wetlands Day. Hundreds of people joined the Deputy Minister at the Kareedouw Community Hall, near Port Elizabeth, to celebrate the 16th World Wetlands Day.

by Zibuse Ndlovu

Deputy Minister Rejoice Mabudafhasi during a celebration of the 16th World Wetlands Day in KouKamma Local Municipality, Eastern Cape.

Since 1996, the Department of Water Affairs and Forestry, through the Working for Water Programme, started the extensive eradication of alien invasive vegetation, starting in the upper catchment with the intention of clearing at least as far as the Churchill Dam.

This day marked the 16th anniversary of the signing of the Convention on Wetlands of International Importance, at the Iranian City of Ramsar on 02 February 1971.

Speaking at the event in the Eastern Cape, the Deputy Minister emphasised that wetlands play a key role in naturally improving water quality and offering buffer zones that can prevent floods.

"Wetlands provide important hydrological functions such as groundwater recharge, water quality improvement and flood alleviation. The health of wetlands depends on the quality and quantity of water that reaches them," said the Deputy Minister.

The international theme for this year's World Wetlands Day is "Wetlands and Water Management" with the slogan "Wetlands take care of water." In addition to this year's Wetlands Day theme, the United Nations General Assembly has also declared 2013 as the International Year for Water Cooperation. The decision recognises that water is critical for sustainable development, human health and well-being. "This calls for conservation of our wetlands and other sources of water. Water is a catalyst for socio-economic development," said the Deputy Minister.

About the contributor: Zibuse Ndlovu

Zibuse Ndlovu is the Assistant Director: Publications and Chief Photographer at the national Department of Environmental Affairs, within the Communications Chief Directorate. Mr Ndlovu has travelled extensively, providing coverage of key environmental events and has experience as a newspaper reporter.

The Department of Environmental Affairs chose Kromme River catchment, as it had made a dramatic recovery, since the area experienced dramatic floods in 2006, which resulted in heavy loss of life and property. In some places the river was gouged down to bedrock level, while in others large amounts of sediment were deposited by the receding floodwaters. The Kromme River catchment is a significant water source for the Nelson Mandela Bay Metropolitan (NMBM). It supplies about 40% of Port Elizabeth's water, via the Churchill Dam. This catchment previously contained some of the largest wetlands in South Africa, which disappeared when an estimated 60% of these valley floor peat basins were lost as a result of invasive alien vegetation, as well as poorly designed roads and farming activities in the floodplain.

The Department of Environmental Affairs supplemented the work in 2001 when the Working for Wetlands Programme kick-started rehabilitating wetlands in the Kromme River catchment. A total of 60 local people from Joubertina and Kareedouw are employed by the Working for Wetlands' projects in the Kromme area and they have also received accredited training focusing on technical, business and life skills. Farmers are also actively involved in the integrated management of the catchment to ensure that the catchment is looked after in totality. They are involved in rehabilitation projects taking place in the area. This initiative improved the agricultural practices.

Nationally, Working for Wetlands has invested R530 million in the rehabilitation of 906 wetlands, thereby improving or securing the health of more than 70 000 hectares of wetland area. In the process, the programme has provided 12 848 employment opportunities.

The Deputy Minister noted with appreciation the increasing number of eco-schools and the emphasis of environmental teachings since she believes strongly that sustaining a legacy can only be achieved through passing on the wisdom to future generations.

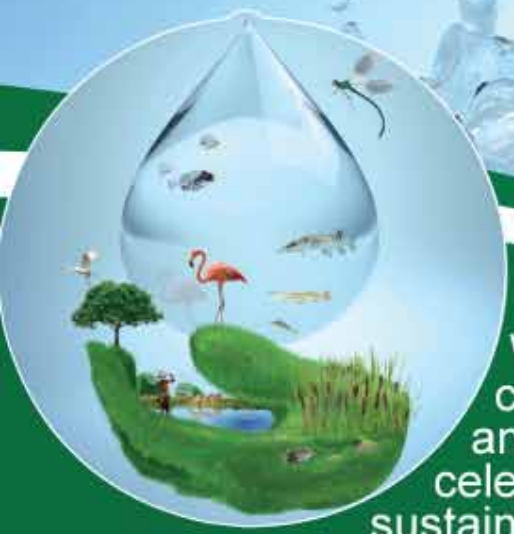
The Deputy Minister of Water and Environmental Affairs during the visit to the Churchill dam at Kareedouw, Eastern Cape (centre, in white), accompanied by the local leadership.

Over the past 11 years, 11 large gabions and concrete structures have been built at a total cost of over R10 million, to combat erosion that threatened the remaining large, intact wetlands. It is estimated that this work has improved water availability by approximately 32 000 litres of water per day per hectare cleared.

Hundreds of community members flocked to the Karreedouw Community during a celebration of the 16th World Wetlands Day.

WORLD WETLANDS DAY 2013

WETLANDS TAKE CARE OF WATER



World Wetlands Day, celebrated on 2 February annually is an international celebration for the conservation and sustainable use of wetlands.

This year's theme: **Water and Wetlands Management**, speaks to the relationship between water and wetlands. Wetlands improve the quality of water while at the same time providing a clean source and store of freshwater. Wetlands also reduce flood impacts, manage river flows and control erosion.

Without the appropriate management of wetlands, water of the right quality and quantity will be hard to find.

Government urges all South Africans to get involved in wetland conservation and restoration. Protect this water resource by reducing environmental impact and using water wisely.

www.environment.gov.za **086 111 2468**

Environmental Affairs
Water Affairs
Agriculture, Forestry & Fisheries

Working for Wetlands

South Africa's wetlands collectively play an important role in sustaining the country's ecology and economy. Yet despite these vital linkages between wetlands and people, wetlands have been severely affected by the same human activities that have dramatically altered South Africa's landscapes over the past few centuries. It is likely that the extent of wetland loss for the country as a whole lies within this range, and consequently it was not surprising that the 2011 National Biodiversity Assessment identified wetlands as the most threatened ecosystem type in South Africa.

By John Dini

Although no systematic national survey of wetland loss has been undertaken, studies in several major catchments have revealed that between 35% and 60% of the wetlands, and the benefits they provide, have been lost or severely degraded.

A pivotal response by the government to this state of affairs was the establishment in 2000, of a national wetland rehabilitation programme, known as Working for Wetlands. The decision to create such a programme came about through the convergence of several driving forces. It drew on objectives in environmental, biodiversity, water and agriculture policies, and capitalised on the growing recognition that wetland degradation is not necessarily permanent, and that it is possible to reinstate at least some ecosystem services through rehabilitation. A foundation was provided for the creation of the programme, in the form of another pioneering government initiative. Since 1996, the Working for Water programme had been engaged in removing thirsty invasive alien plants that posed a threat to the country's water security, agricultural productivity and biodiversity. The non-governmental Mondi Wetlands Project recognised that the labour-intensive model pioneered by Working for Water would be equally suited to the activities involved in rehabilitating wetlands.

Perhaps the most significant factor enabling the emergence of Working for Wetlands was the availability of government funds earmarked for employment creation and poverty reduction, through the Expanded Public Works Programme (EPWP). This initiative was set up to draw unemployed people into the productive sector of the economy, gaining skills while they work and increasing their capacity to earn income. The ability to turn wetland rehabilitation into a labour-intensive process unlocked a magnitude of financial resources and political support, that was previously inconceivable to cash-strapped government departments responsible for biodiversity conservation and natural resource management.

About the contributor: John Dini

John Dini is Director of the Freshwater Programme at the South African National Biodiversity Institute. He has been closely involved with the Working for Wetlands Programme, since its inception 12 years ago. He is an avid photographer and is passionate about the rehabilitation and conservation of wetlands and the environment.

Thus, Working for Wetlands pursues its mandate of wetland rehabilitation and wise use in a manner that maximises employment creation, supports small emerging businesses, and transfers skills to its beneficiaries. In line with EPWP norms, the programme targets those groups most excluded from the mainstream economy, with particular emphasis on women, youth and people with disabilities.

"This large-scale investment of public funds stimulated a range of supporting activities,"

All rehabilitation interventions aim to improve the condition and functioning of the ecosystem, and address both causes and effects of degradation. Typical project activities include:

- Building concrete, earthen or gabion structures to arrest erosion, trap sediment and re-saturate drained wetland areas.
- Plugging artificial drainage channels.
- Addressing other causes of degradation.
- Plant propagation, re-vegetation and bio-engineering.
- Building boardwalks, bird hides and interpretive signboards to enhance the recreational 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.
- Providing community members with part-time employment and training to monitor completed rehabilitation once the work is completed.

In the 12 years since its inception, Working for Wetlands has invested R530 million (approximately US$60 million) in the rehabilitation of 906 wetlands, thereby improving or securing the health of more than 70 000 hectares of wetland area. In the process, the programme has provided 12 848 employment opportunities, with 2.2 million person days worked to date. In line with the emphasis of the EPWP on training, Working for Wetlands has provided 168 400 days of training in both vocational and life skills.

This large-scale investment of public funds in wetland rehabilitation stimulated a range of supporting activities, including the publication by the Water Research Commission in 2008 of an 11-volume series of reports, manuals and guidelines for wetland assessment and rehabilitation. This helped to strengthen the scientific and technical foundation for the programme's work, which enhanced the scope to plan and undertake systematic rehabilitation at catchment scale.

Benefits accruing from the wetlands rehabilitated by Working for Wetlands include improved livelihoods, protection of agricultural resources, enhanced biodiversity, cleaner water, reduced impacts from flooding and sustained baseflows in rivers.

Case study 1:

Healthy wetlands, healthy people: livelihoods and rehabilitation of Manalana wetland

The Manalana wetland, near Bushbuckridge in Mpumalanga, was severely degraded by erosion that threatened to consume the entire system if left unchecked. About 70% of the local population make use of the wetland in some way.

The Manalana wetland thus offered an important safety net, particularly for the poor, contributing about 40% of the food grown locally. As a result, Working for Wetlands partnered with a locally-based NGO in 2006 to stabilise erosion and improve the wetland's ability to continue providing its beneficial services, while the NGO worked with wetland users to implement more sustainable cultivation practices.

An economic valuation study completed in 2008 revealed that:

1. The annual value of livelihood benefits derived from the degraded wetland was a mere 34% of what could be achieved with an investment in rehabilitation.
2. After rehabilitation, the wetland now contributes provisioning services conservatively estimated at R3 466 (about US$392) per household per year to some 70% of local households, in an area where 50% of households survive on an income of less than R5 700 (US$644) per year.
3. The net present value of the livelihood benefits (R1 995 885 or US$225 500) provided by the rehabilitated wetland over a 50-year period is more than double the cost of the rehabilitation interventions (R947 328 or US$107 030), including monitoring and maintenance over the same period, indicating a very favourable return on Working for Wetlands' investment.

The wetland users are mostly typically women between 35 and 70 years of age from single-headed households.

The catchment has been the focus of concerted action to rehabilitate wetlands and eradicate invasive alien plants.

4. Manalana wetland acted as a safety-net that buffered households from slipping further into poverty during times of shock or stress.

Case study 2:

Restoring the kidneys of the landscape

The diverse Rietvlei wetland system is situated immediately upstream of the Rietvlei Dam within a 4 000 hectare nature reserve just outside Pretoria. The dam has provided Pretoria with drinking water since 1934, producing about 41 million litres per day, or 3% of the city's current requirement. Until recently, the Rietvlei wetlands were heavily eroded and desiccated.

In recent years, the dam has become severely overloaded with nutrients and other pollutants, as its highly urbanised catchment has received increasing volumes of treated domestic sewage and industrial effluent. As a result, the dam is plagued by blooms of blue-green algae, which cause bad tastes and odours in the water that are difficult to remove and require expensive treatment, as well as posing potential threats to health.

Partly in response to this situation, Working for Wetlands formed a partnership with the Tshwane Municipality in 2000 to rehabilitate wetlands upstream of the dam, with the primary objective of improving their ability to purify the water flowing into the dam. Interventions included gabion, concrete and earthen structures to control erosion, re-wet the organic soils, increase retention time of water and ensure even distribution of flow across the wetland.

Monitoring results show that the rehabilitated wetlands are improving the quality of water flowing into the dam with ammonia levels down by 53%, nitrates by 77%, fluoride by 24% and sulphates by 4%, compared to upstream of the wetlands. This reduction in pollutants entering the dam is contributing to reduced algal growth, thereby reducing the costs of treating the water for human consumption.

Case study 3:

Wetlands and flood mitigation in the Krom River

The Krom River in the Eastern Cape previously contained some of the largest wetlands of their type in South Africa. However, it is estimated that half of these have been lost as a result of infestation by alien vegetation and destructive human activities.

Since 2001, ten large structures have been built to combat erosion that threatened the remaining large intact wetlands.

In 2006, the Krom River experienced its most severe floods since measurements began in 1938, resulting in heavy loss of life and property. The remaining wetlands played a key role in managing the floods, slowing the velocity and destructive potential of the floodwaters and trapping sediment. The wetlands proved crucial for reducing further potential damage downstream.

The Working for Wetlands structures accomplished their purpose and the two main wetland basins emerged from the floods largely unscathed.

However, where wetlands had been destroyed to make way for cultivated fields, parts of the floodplain and river banks were carried away by the floodwaters. Large volumes of sand were dumped onto the remaining fields, and the rest of the sediment was deposited further downstream.

Case study 4:

The story of Pilot Malele

Pilot Malele was unemployed prior to joining Working for Wetlands in 2002. He had completed his secondary schooling but was enable to study further due to financial constraints.

Working on the Sand River project, Pilot seized the training opportunities made available through the programme and was appointed as a contractor, managing a team of 12 people

Participating in an evaluation of the socio-economic impact of Working for Wetlands, Pilot indicated that his life had improved tremendously since he joined the programme.

The formalised and secure employment enabled him to build a house for his family. A particular source of satisfaction was being able to provide his children with the education that his parents could not afford to provide for him. Pilot's story shows how such opportunities can change lives.

Wetlands take care of water

In celebration of World Wetlands Day, marked on 2 February every year, the Ramsar Convention presents Ottie the otter.

OTTIE THE OTTER

Create your own paper toys and enjoy!

Note to teachers:

Help small children to cut out and fold the illustrations into finger puppets. Have them act out skits explaining why they think wetlands and water are important.

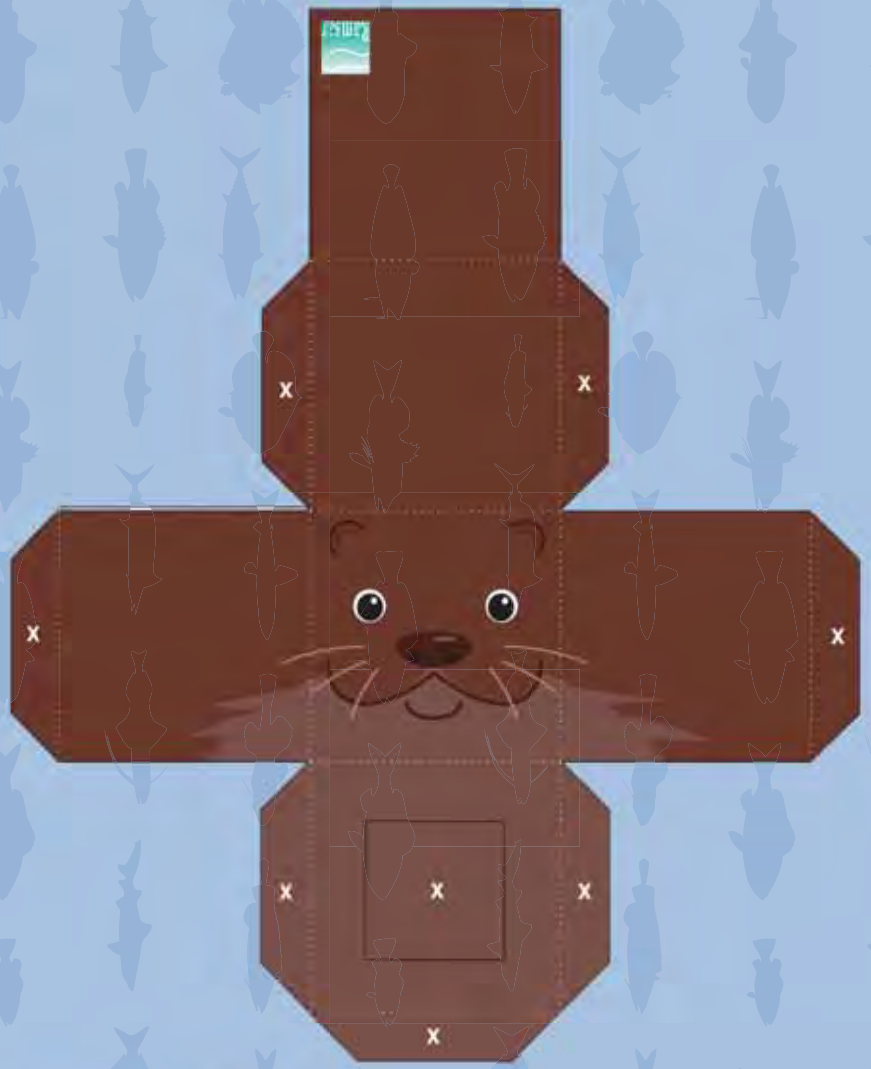
OTTIE the otter

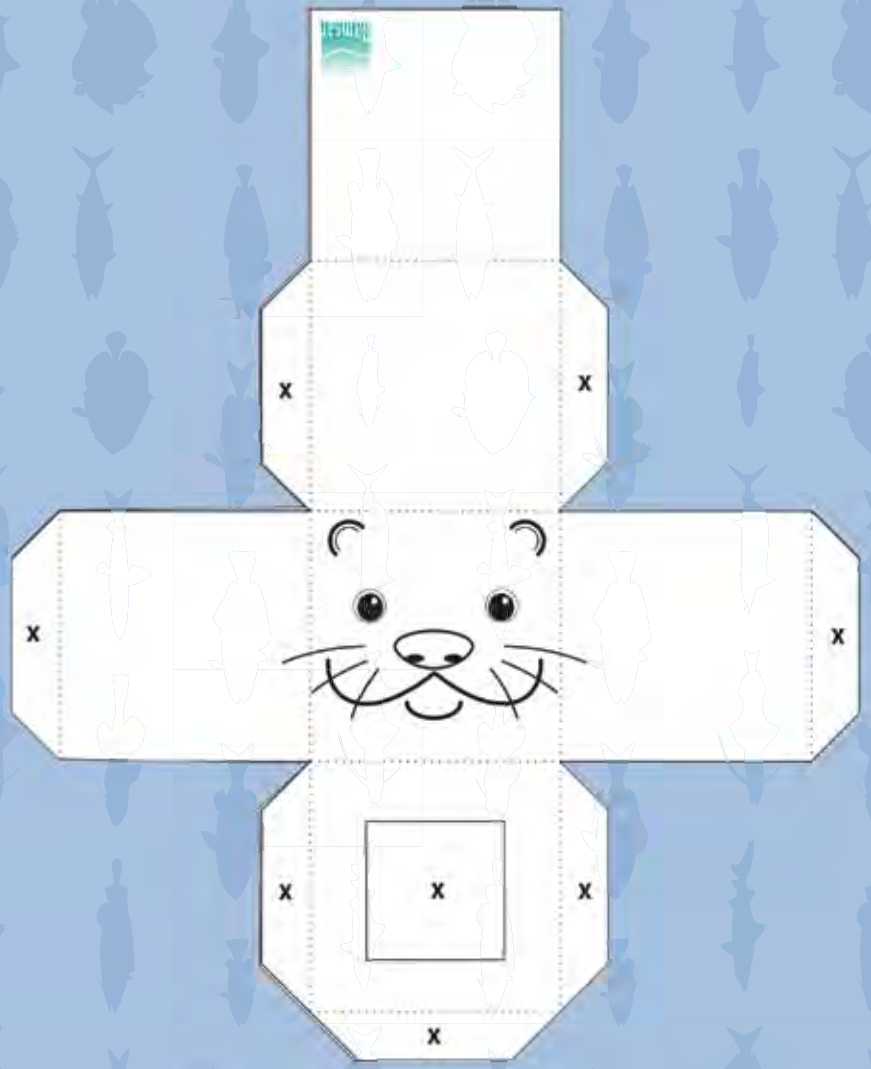
Cut around the edge of the figures

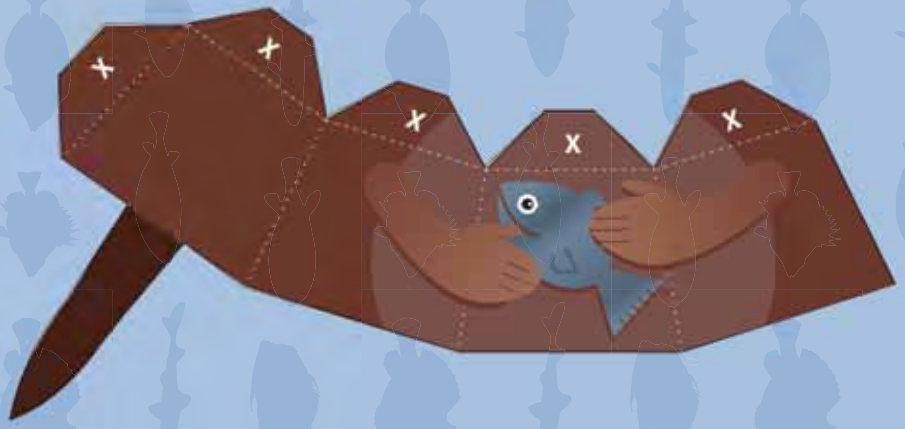
Fold inwards along the dotted lines

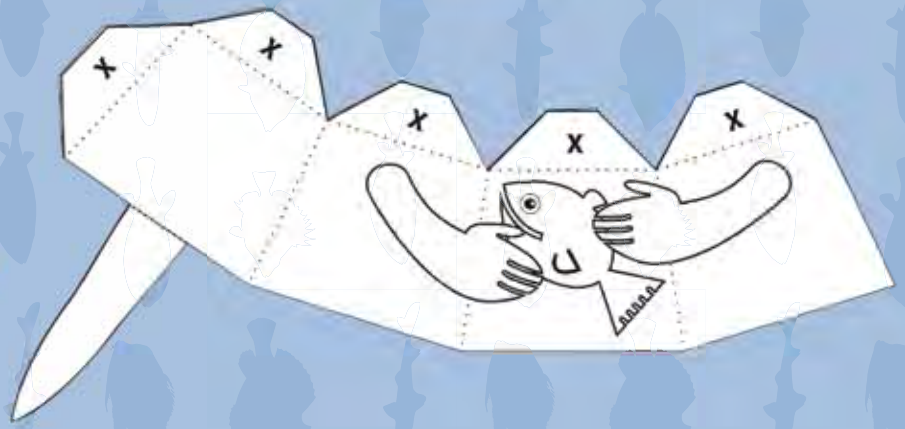
X These sections need to be **glued**

x **Glue** the body onto this square









The women ministers and leaders for Environment meet to review progress

The co-chairpersons of the Global Network of Women Ministers and Leaders for the Environment (NWMLE), Deputy Minister of Water and Environmental Affairs, Ms Rejoice Mabudafhasi and the Minister of Environment from the Kingdom of Sweden, Ms Lena Ek led the meeting of the NWMLE. The ministers led the NWMLE meeting under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) COP 18 hes of UNFCCC COP 18 here in Doha, Qatar, in December 2012.

By Peter Mbelengwa

The Minister of Environment from Sweden, Ms Lenah Ek and Deputy Minister Mabudafhasi at the Network of Women Ministers and Leaders for the Environment in Doha, Qatar.

Deputy Minister Mabudafhasi said the purpose of the NWMLE meeting was to finalise the framework of performance, review achievements, discuss challenges and look at how the network was institutionalised, into the United Nations Environment Programme (UNEP) structures.

"I would also like to accentuate the importance of reporting on our country initiatives particularly the grassroots initiatives or projects led by women, this will be the evidence of our achievement as the Global Network and the impact we have made," said Deputy Minister Mabudafhasi.

Echoing the same sentiments, the co-chairperson of the Network Minister Ek, said she was very pleased with the commitments made by the Women Ministers and Leaders on Environment. "Climate change affects women's health even more severely than it does men and the climate negotiation is one arena where women participation is essential," said Minister Ek.

In March 2002, the International Union for Conservation of Nature (IUCN) and the Council of World Women Leaders convened a meeting of women ministers and leader for the environment in Helsinki, Finland. In attendance were 22 Women Ministers of Environment and 28 Women Leaders of intergovernmental and non-governmental environmental organisations from Africa, Asia, Europe, North and South America who resolved to establish a Network of Women Ministers and Leaders for the Environment.

The overall objective of the network was to promote gender responsive sustainable environmental management at regional and global levels. The Network aims to enhance the representation and involvement of women in decision making in areas of environment and sustainable development at all levels.

About the contributor: Peter Mbelengwa

Peter Mbelengwa is the spokesperson of the Deputy Minister of Water and Environmental Affairs, Honourable Rejoice Mabudafhasi.

MORE CLIMATE CHANGE MEANS LESS WATER

The earth's temperature is increasing. Unless we play our part, this will have serious consequences on our water systems which is not good for a continent already in short supply of fresh water.

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Climate Action Now!
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Climate Change
and Air Quality Management

"A career in Climate Change is a luxurious one!" A very bold declaration from one of the employees of the Climate Change and Air Quality Management Branch. This statement was not contested as if everyone in the meeting was in agreement; totally. That seems to be the feeling of those who are working within this branch and those who are outside and looking at the work that this branch is doing.

By Andrew Motha

Far from luxurious, the purpose of the branch is to improve air and atmospheric quality, lead and support, inform, monitor and report efficient and effective international, national and significant provincial and local responses to climate change; thus ensuring that the country is ready to respond to the imminent climate change challenge. Furthermore, ensuring that the air that we breathe is clean and healthy.

The branch Climate Change and Air Quality management comprise of 5 key chief directorates; four of which are strictly focusing on the coordinating South Africa's response to climate change and one that focuses on Air Quality Management. The Branch came into being after the June 2012 restructuring process which saw Air Quality Management move from the then Environmental Quality Protection to a focus that merged the work of the department on atmospheric protection with that of climate change response.

The five branches were coined as follows:

- Air Quality Management
- Climate Change Mitigation
- Climate Change Adaptation
- Monitoring and Evaluation
- International Negotiations

Air Quality Management

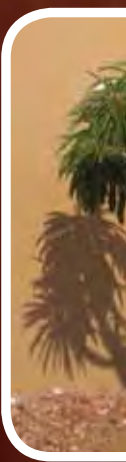
This chief directorate is the old cow of this branch, with already established systems and structures. Their work is mostly informed by the National Environmental Management: Air Quality Act (Act 39 of 2004). Their purpose as encapsulated in the act is to protect the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development while promoting justifiable economic and social development. The act further provide the guideline on how to achieve the purpose through the provision for national norms and standards regulating air quality monitoring, management and control by all spheres of government; and for specific air quality measures.

This chief directorate has almost outdone itself in the implementation of the act. The air quality management chief directorate's work span from that of providing assistance (in terms of capacity building and support) to the spheres of government tasked with atmospheric licensing function, to developing minimum emission standards for listed activities, to managing the monitoring function of the country, to developing regulations and legislations that have to deal with atmospheric protection.

One of their important projects is that of priority are management, where they are tasked with the development of appropriate air quality management plans for the areas that have been declared as priority areas. These areas are mostly areas

About the contributor: Andrew Makhiwesizwe Motha

Andrew Makhiwesizwe Motha is the Director responsible for Industry Mitigation within the Climate Change Mitigation Chief Directorate. He has worked in various units within the Department of Environmental Affairs, including the former Marine and Coastal Management and Air Quality Management. Mr Motha has also worked for the Council for Scientific and Industrial Research (CSIR).



... specific air quality management action are developed and implemented to rectify the negative impact on the air quality.

where ambient air quality standards are believed to be exceeded or where there is any other situation that exists which is causing, or may cause, a significant negative impact on air quality. The function of this chief directorate in these areas is to ensure that specific air quality management action are developed and implemented to rectify the negative impact on the air quality. Currently the department through the AQM chief directorate is managing three priority areas: the Vaal Airshed Priority Area, the Highveld Priority Area as well as the Waterberg-Bojanala Priority Area. Whereas the first two have been developed and under implementation, the latter is still under development and the department has put an effort to ensure that all necessary consultation is in place in both the development and the implementation of the Priority Area Air Quality Management Plans.

Most of the work of this chief directorate is deposited into a web based portal, the South African Air Quality Information Systems (SAAQIS: www.Saaqis.org.za).

Climate Change Chief Directorates

An iterative and participatory policy development process that was started in October 2005 resulted in the publication on the National Climate Change Response White Paper in 2011 and steered the country into a new path towards addressing the imminent challenges of climate change. The transition to lower carbon economy and society requires that the country applies herself in a planning and implementation process that will allow us to minimise our negative impact on the atmosphere and the environment, prepare for adaptation through building resilient systems that will withstand the unavoidable impacts of Climate Change. The NCCR-WP provides a platform where the work of transiting to a lower carbon economy and society can be organised. It is due to this reason that the department of environmental affairs (who are the custodians and the lead department in implementation of the white paper) had set up a structure in the form of a branch to ensure that the policy is adequately implemented. The four chief directorates of the CC and AQM branch exist solely to ensure that this policy is implemented.

International Negotiations

This chief directorate as its name suggests is responsible for coordinating South Africa's negotiation within the United Nations Framework Convention on Climate Change. Its work involves ensuring that the country has a position on issues of climate change and is protecting the quality of our environment without compromising the economic and social status of the country.

Climate Change Mitigation

The policy approach to mitigation seeks to achieve a balance among achievement of SA's development priorities; the economic and social opportunities presented by the transition to a lower carbon economy and the country's contribution as a responsible global citizen to the international effort to curb global emissions. The Climate change mitigation chief directorate is there to ensure that this approach is realised.

The work of the chief directorate involves ensuring that a guideline is developed on how to set desired sectoral mitigation outcomes, using a mix of mitigation policies and measures, including carbon budgeting, making use of the market, developments of mitigation plans for sectors and sub-sectors as well as monitoring and evaluation. Armed with four key directorates the chief directorate is able to address issues pertaining to mitigation of emission in Energy, Transport, Industry, and Agricultural (AFOLU)[1] sectors. Currently the chief directorate is involved in projects that seek to identify desired sectoral mitigation outcomes for each key sector based on an in depth assessment of; the mitigation potential, best available mitigation options, and a full assessment of costs and benefits.

Climate Change Adaptation

The appreciation that all states in the Southern African sub-region face the challenges of rural and urban poverty, limited water or access to water resources, food insecurity, and other development challenges give purpose to this chief directorate. Its purpose is defined along the lines of ensuring that South Africa develops climate change adaptation strategies based on reduction of risk and vulnerability, this done in collaboration with South Africa's neighbours.

...all states in the Southern African sub-region face the challenges of rural and urban poverty, limited water or access to water resources, food insecurity, and other development challenges

Amongst the work that the Chief Directorate is doing it has a responsibility of:

- Adoption of a regional approach to adaptation
- Identification and prioritization of key short and medium term adaptation interventions to be addressed in sector plans
- Identification of adaptation responses that require co-ordination between specific sectors/ departments
- Integration of adaptation strategies in sectoral plans
- Development and piloting of a methodology to downscale climate information and comprehensive impact assessments to specific geographical areas, and
- Monitoring and evaluation

To this end the main work of the chief directorate entails the development of long term adaptation scenarios in order to project and assess:

- the socio-economic and environmental implications of the potential impacts of anticipated climate change and climate variability, and
- the adaptation response options available, for
- identified sectors in South Africa, over
- the short (next decade) medium (two to three decades) and long term (mid -to end of century), on the basis of
- the latest range of IPCC forcing scenarios

The chief directorate is working around the clock to ensure that its purpose if fulfilled.

Monitoring and evaluation

Building on what already exist, the key responsibility of this chief directorate is to ensure that there are proper reporting systems in place so that we can track progress on the work that the other chief directorates are doing. The development of reporting system is a bottom up iterative interaction between the M&E, and the mitigation and adaptation planning and implementation processes. The chief directorate has very focused targets going forward. Its 2013 target include updating the GHG inventory, analysis of emission trends, reports on flagship to provide a summary of mitigation programs already being implemented; efforts to scale up, opportunities for further scaling up; mix of policies and measures in place; mitigation outcome.

Other overarching responsibilities

All aspect of the work of the branch is carried out within and ambit of constrained resources, job scarcity, as well as many other developmental challenges. Furthermore, Climate Change and Air Quality issues are not just local issues but are Trans-boundary in nature, thus necessitating the a clear programme on how governance issues are managed for both authorities and the entire populace. To this end a number of structures are in place to ensure proper governance of both Air Quality Management and climate change. The Air Quality Forums at both National and Provincial levels enables government departments to meet and discuss and decide on the course of their management action going forward and Inter Governmental Committee on Climate Change as well as the National Climate Change Committee are established for similar purpose in the Climate Change arena.

Reading through the NCCR-WP there is a lot more responsibilities that this branch is tasked with. The National Framework on Air Quality Management provides a mirror of thing to be done in the air quality management arena. Clearly far from luxurious, this branch has a lot in its hands. The competent staff that operate the different desks and offices of the branch can only be applauded for the great effort that they are putting to ensure that this branch stay afloat and that the purpose of the branch is achieved amidst all the different challenges that the branch has to deal with every day.

[1] Agriculture, Forestry and Other Land Uses

Workshop empowers communities with information on natural resource management

The Department of Environmental Affairs recently conducted a successful Community Based Natural Resource Management Workshop (CBNRM). The workshop was aimed at creating awareness around issues of environmental conservation and the proper management of natural resources. The event was held in Richards Bay in KwaZulu-Natal, and brought together various stakeholders and members of the public from the uThungulu District Municipality.

By Nkosingiphile Khuluse

Community members listening attentively to presentations during a Community Based Natural Resource Management workshop at uThungulu District.

The one-day workshop held on 15 November 2012, sought to promote the proper management of natural resources at a community level and to educate the local community about how they could benefit through the CBNRM initiative.

It afforded the Department an opportunity to impart knowledge to the community on the importance of proper natural resource management guidelines as adopted during the World Parks Congress in 2003.

These guidelines seek to encourage and support community participation in the management and sustainable use of natural resources to enhance their livelihoods at community level. Participants showed a desire to learn more about how the CBNRM could be used to benefit the local community.

Some of the recommendations included the following:

- More projects being given directly to community co-operatives than to public entities.
- The revival of activities such as beach diving and fishing.
- The incorporation of the CBNRM initiative into the school curriculum.
- The protection of endangered species such as the rhino and the puff adder.

The workshop also heard robust recommendations from the stakeholders in attendance, which included amakhosi (local tribal chiefs), wildlife conservation officials, the KwaZulu-Natal Department of Agriculture and Environmental Affairs and community representatives.

About the contributor: Nkosingiphile Khuluse

Nkosingiphile Khuluse is the Environmental Officer: Local Government Support at the National Department of Environmental Affairs, within the Environment, Sector and Coordination Chief Directorate. Ms Khuluse works directly with municipalities at the district level, providing support in environmental planning, capacity building and environmental projects.

A quick guide to Bio-prospecting Access and Benefit Sharing (BABS)

South African laws on bio-prospecting

South Africa is one of the first countries to regulate the protection and use of indigenous biological resources and traditional knowledge. In April 2008, regulations for bio-prospecting, access and benefit sharing came into effect and put red tape on access to South Africa's bio-resources.

Who is a bio-prospector?

A bio-prospector is a scientist searching for organic compounds in plants and animals that can be used in a commodity such as crop protection substances or medicines.

There are three types of permits

- **The bio-prospecting permit** is issued to bio-traders trading in raw materials or bio-prospecting products that are manufactured here;
- **The Integrated export and bio-prospecting permit** is issued if an entity wishes to export any raw or primary processed material for the purposes of bio-prospecting; and
- **The export permit for research other than bio-prospecting** is issued for pure academic research abroad with no intention to commercially exploit the bio-resource where such material is exported from "in situ" collections.

What has the department been doing to raise awareness on bio-prospecting regulations?

The department has embarked on a campaign to make bio-traders aware of the legal implications of bio-prospecting. Workshops are held in all nine provinces with bio-traders, research and academic institutions and other interested parties like traditional healers and industry leaders. The department also has a right to conduct compliance inspections at companies known to trade in bio-resources or bio-resource-based commodities. Furthermore, the Department must conduct compliance inspections on the permit holders.

The benefits of the regulations on bio-prospecting

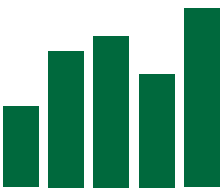
The significance of South Africa's party to the Nagoya Protocol is that it encourages grassroots involvement in the process of discovery, research and development of products based on genetic resources. The purpose of the national legislation is not to restrict access to our resources and collect money, but to ensure that the resources are accessed for a purpose that is in the interest of the public. Such interest could include the protection and conservation of the genetic resources of South African animals, plants and other organisms; stimulating economic development and/or promoting scientific research and capacity in South Africa. The legislation also stipulates that the money accruing from any benefit sharing agreement should go into a trust fund administered by government and then transferred to the community.

Bio-prospecting is a green economy initiative

In general, South Africa's Green economy agenda is underpinned by the important role and value that biodiversity plays in our very survival, giving rise to the notion of bio-prospecting, access and benefit sharing. The bio-prospecting permits issued to companies have provided for benefit sharing including monetary and non-monetary benefits, and the sustainable development and utilisation of indigenous biological resources. The use of the indigenous plants and animals for bio-prospecting contributes to the creation of job opportunities, poverty eradication, skills development and technology transfer when it is done for a purpose that is in the public interest.

How are businesses affected?

For companies using biodiversity in their products, the Nagoya Protocol calls for measures to consider and put in practice fair and equitable benefit sharing. Any companies found bio-trading without a bio-prospecting permit may be criminally charged and is liable to a fine of R10-million or ten years imprisonment, or both.



DEA injects R1.1 million boost towards African Green Campus Initiative

The Department of Environmental Affairs (DEA) strongly believes in inculcating a sense of responsibility and care for the environment amongst the youth and is thus a proud funder of the African Green Campus Initiative (AGCI). A project, led by the Tshwane University of Technology (TUT) received a R1.1 million financial boost from DEA.

By Zibuse Ndlovu

GOING GREEN: One of the most innovative initiatives of the young TUT Centre for Energy and Electrical Power institution, has been the development of a campus wide "Green Campus Initiative" aimed at enhancing energy efficiency and environmental awareness.

ENERGY EFFICIENT: The Green Campus activities at TUT are focused on the installation of energy efficient lighting; solar water heating units; green heating units, ventilation and air-conditioning.

The African Green Campus Initiative is a strategic response to climate change challenges facing colleges and universities, communities and society at large. The Department of Higher Education and Training in partnership with DEA and other key stakeholders launched the African Green Campus Initiative on 21 April 2012, in Cape Town.

The Deputy Director of Student Affairs at TUT, Mr Eric Sebokedi said the university received the money to create awareness on climate change issues and to empower green campus initiatives at different universities. "Our role was to explain to them what is it that they can do at campus level to mitigate," said Mr Sebokedi.

TUT has a Centre for Energy and Electrical Power (CEEP) established in early 2010. According to the CEEP 2012 Workshop report, the vision of the Centre is to be a leader in conducting cutting edge research in energy and electric power, as well as in providing training and state of the art technology solutions in the field. The related mission of CEEP is to develop, implement and transfer effective energy and electric power solutions for industrial, commercial and domestic applications for sustainable development. Above all, the CEEP report further states that the objective of CEEP is to undertake high-quality, targeted and useful research that directly contributes to addressing society's energy and electric power issues.

LEGACY INITIATIVE: Inspired by the fact that South Africa was to host the world's climate change stakeholders for the 17 Conference of the Parties (COP 17) to the United Nations Framework Convention on Climate Change (UNFCCC) in December 2011, the Centre for Energy and Electric Power (CEEP), Faculty of Engineering and the Built Environment at Tshwane University of Technology, determined that it would embark upon an effort to support the participation and understanding of African policy makers around the issues to be addressed during the COP 17 deliberations and beyond.

"Our colleges and universities must exercise leadership in their campus communities and throughout society by modelling ways to minimize global warming emissions, and by providing the knowledge and the educated graduates we can achieve climate neutrality," explained Mr Sebokedi.

According to Mr Sebokedi the next round of the educational workshops conducted by TUT will focus mostly on empowering staff and all the management in the universities to start developing the environmental sustainability policies. "One of the projects that we are doing is the energy infrastructure audit, we check the buildings if they are energy efficiency or not. We also encourage universities who are still building new buildings to go green," adds Mr Sebokedi.

The main target customers of the centre include funders of public research, public and private sector institutions and organisations requiring specialised energy related skills, individuals requiring training related to the energy and electricity sector; and the postgraduate students requiring supervision.

"The main aim of the Green Campus project is to achieve cost reduction in the University's energy spend that will enable TUT to allocate more resources for improved learning."

One of the most innovative initiatives of the young TUT CEEP institution has been the development of a campus wide 'Green Campus Initiative" aimed at enhancing energy efficiency and environmental awareness across the four provinces (Gauteng, Limpopo, North-West and Mpumalanga), where TUT has academic campuses.

The main aim of the Green Campus project is to achieve cost reduction in the University's energy spend that will enable TUT to allocate more resources for improved learning.

In April 2012, South African universities together with the committee of rectors and principals of all universities pledged to go green.

Deputy Minister hands over 500 desks to schools

The Deputy Minister of Water and Environmental Affairs Minister, Ms Rejoice Mabudafhasi, gave 250 school desks on 23 to the Boitumelo High School in Ficksburg and another 250 desks to Maatla Primary School on 29 January 2013, in Hoedspruit, Limpopo.

By Lenard Mbhiza

Above: The high-quality, durable, solid-wooden desks handed over to both schools are being manufactured for less than half of what schools are currently paying for chipboard desks that last a fraction of the time of the Eco-desks. At R420-00 per school desk, these costs of the Eco-desks include the full costs of harvesting the wood.

Above: The Deputy Minister with the Maatla Primary School children. The 250 solid wooden desks handed over to the school are made out of biomass from cleared Invasive Alien Plants.

The project was initiated by the department through environmental programmes in partnership with South African National Parks aimed at eradicating alien invasive plants.

During the month of July last year, the Deputy Minister adopted Maatla Primary School in honour of former statesman Nelson Mandela. The Department of Environmental Affairs in partnership with Mvula Trust, and the Agriculture Department has achieved last year to donate Toilets, Bins, and Gardening Tunnel to the school in honour of Nelson Mandela Day which was celebrated last year at the school.

Speaking at the handover ceremony, the Deputy Minister of Water and Environment Affairs said the new desks would create conducive learning environment, and would encourage the students to put more energy on their studies. "We need to produce scientist and researchers. However, we are encouraging our youth to consider Water, Land Conservation and Environmental Studies as careers", said the Deputy Minister.

The desks handed over to the school are made out of biomass from cleared invasive alien plants.

The desks handed over to the school are made out of biomass from cleared Invasive Alien Plants. They were manufactured at the Department of Environmental Affairs' Working for Water Eco Furniture factory situated in KwaZulu Natal. The Working for Water programme has piloted value-added industry options, in partnership with the KwaZulu-Natal Invasive Alien Species Programme (KZN IASP). "These initiatives have shown the viability of the approach of utilizing invasive alien biomass to create jobs, in making value-added products relevant to Government's needs, and reducing the cost of clearing the invasive plants," said the Deputy Minister.

Since the project initiated, it has received global recognition funded by R1-million from the World Bank, and in partnership with the Alliance of Religion and Conservation. She said this money will help to save the environment but in the meantime providing resources and jobs to the poor people. "Our long time mission as the Department of Environmental Affairs towards this money is develop factories national wide and create more jobs to the needy people", said the Deputy Minister.

About the contributor: Lenard Mbhiza

Lenard Mbhiza is an intern for Development Communication Campaign and Awareness, within the department's Chief Directorate: Communication. Mr Mbhiza assists with the coordination, development and implementation of environmental education and awareness programmes.

Earth Day 2013

The face of climate change

In the face of extraordinary incidences of extreme weather, loss of species and pollution, it is clear that climate change is affecting our planet. We cannot afford to wait any longer to act! This is why, on April 22, people across the globe will help put a *Face to Climate Change* in celebration of *Earth Day* and become a part of the solution.

What is climate change?

Climate change is an alteration in the Earth's general weather conditions, of which the most noticeable is the rising temperature of the Earth's surface. Climate change also includes differences in rainfall patterns and weather events leading to floods or droughts. The causes of climate change comprise of increases in greenhouse gases, through the burning of un-renewable fuels like coal; and human activities, such as chopping down forests and changing land uses. As a result, the Earth's natural ability to absorb greenhouse gases is reduced.

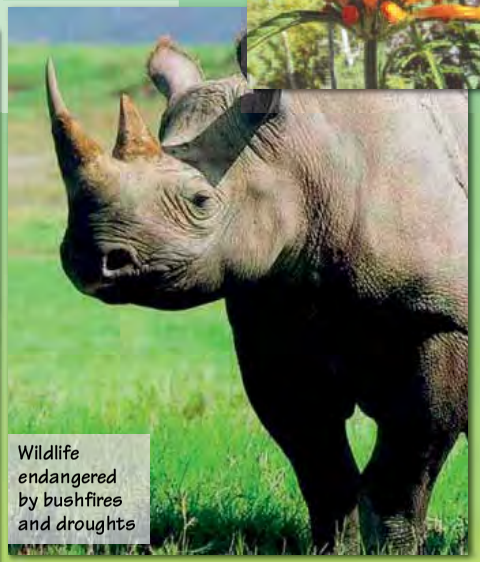
Climate change has many faces

Climate change affects us all, from families that have to relocate due to floods and storms in coastal areas such as Durban to farmers struggling to make ends meet due to dryness in the Limpopo and North-West Province. And not only human faces are touched by climate change. There are also rhinos and elephants threatened by bushfires and droughts, amongst many other examples.

Biodiversity and climate change

One of the sectors of the environment that is worst affected by climate change is biodiversity. South Africa is one of the world's top three mega-biodiverse nations (the other two are Brazil and Indonesia), meaning it has some of the most diverse plants and animals. Imagine biodiversity like a giant spider web of the environment: The trees, plants and animals represent the many strings of the web and if anything interferes with just one of these, the whole web is affected. This in turn affects the spider (humans), because the web is both its home and source of food.

Drylands that support very little life



Wildlife endangered by bushfires and droughts

Floods in KwaZulu-Natal

Fynbos in the Cape floral regions

Topography is the features, relations or configuration of land and includes plateaus and coastal plains.

South African diversity

South Africa has a wide range of climates and topography that gives rise to different vegetation zones called biomes. Biomes include grasslands, fynbos, savannas and succulent Karoo. Changes in our climate can have serious implications for the habitats in these areas, as well as the creatures that live in them. South Africa also already suffers from low rainfall in many regions that can lead to wildfires, overgrazing and less water-availability, so further climate changes are even more damaging to our environment, affecting jobs and food sources.

How can you help?

1. Make sure dishwashers and washing machines are full before switching them on to reduce the number of times you use these appliances.
2. Use ceiling fans rather than air conditioning to keep cool in summer. Fans use electricity, but need much less energy than air conditioners.
3. Turn off appliances, like computers, TVs, video games and radios as soon as you have finished using them.
4. Save water and electricity by taking shorter showers and turning off the water while brushing your teeth.
5. Make sure all taps are tightly closed when you are done using them.
6. Make a habit of switching off the lights when no one is in the room.
7. Ask your parents to switch the light bulbs in your home to energy saving bulbs.

Earth Day founder

During the 1970, protest in America (specifically against the Vietnam War) was very popular, but saving the planet was not the main cause. This is when Earth Day founder Gaylord Nelson, then a U.S. Senator, got the idea to channel the energy of anti-war protests towards environmental concerns. After witnessing the devastations of a massive oil spill in Santa Barbara, California, in 1969, he founded Earth Day in 1970.

Drawing attention

He realised that if he could make environmental concerns as popular as war issues, it would force environmental protection onto the political agenda. As a result, on 22 April, 20 million Americans took to the streets, parks and auditoriums to demonstrate for a sustainable environment. The first Earth Day then led to the creation of the **United States Environmental Protection Agency** and the passage of the **Clean Air, Clean Water** and **Endangered Species Acts**.

environmental affairs
Department :
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Minister and Executive Council support research-based policy making

In response to the pressing environmental issues, the Environment Sector Research, Development and Evidence Framework Research document was approved for implementation by Minister and Members of Executive Council (MINMEC), in mid 2012. The document addresses the need for a common framework for the collection of solid evidence that can be used in support of environment sector policy decisions and for the achievement of sector priorities.

By Thembelihle Ndukwana

The framework seeks to develop a more rigorous approach that gathers, critically appraises and uses high quality research evidence to inform policy-making and professional practice.

The Outcome 10, Environment Sector Plan and South African Environment Outlook priorities are used to identify evidence needs and likely future developments. These environmental issues inform the environmental research questions and the agenda for the sector at thematic level. The context for the framework is to implement the national R&D goals through responding to the Sector Plan and Outcome 10 evidence needs, while ensuring a coordinated common approach for developing sector thematic strategies.

The framework requires that knowledge transfer between researchers and policy makers in the environmental sector be strengthened; policy-makers and researchers need to work more closely together by means of established, regular and trusting interaction and dialogue.

Through DEA, a central knowledge management system (web-based data system) will be developed to help facilitate interactions among key stakeholders from the science and the policy domains. Various forums will be used to facilitate sector science-policy interface and evidence based policy-making.

This environment sector R, D& E framework is implemented in phases. The following ten (10) thematic areas have been identified: Biodiversity, Chemicals & waste, Sustainable Development, Oceans & coast, Air quality, Climate change, Impact Management, Water, Green economy and Compliance & enforcement. In line with level 3 thematic strategies, a minimum of five areas were identified to initiate immediate implementation i.e. Biodiversity, Chemicals & Waste, Climate change (through the 3rd national communication), Air quality and Oceans & coast.

Environment Sector R, D & E strategic context and ten themes

Implementation of the R, D & E framework is part of the collaboration between DEA and Department of Science and Technology (DST) that was signed in 2008 and reviewed in 2011. The annual implementation plan is developed to identify the joint areas of collaboration. As part of this collaboration, the DEA partnered with the DST and National Research Foundation (NRF) to host a Global Change Conference from 26 to 28 November 2012.

The first day of the conference was opened by the Honourable Minister of Science and Technology, Derek Hanekom and the last day was

About the contributor: Thembelihle Ndukwana

Thembelihle Ndukwana is the Deputy Director:National Sustainable Development at the national Department of Environmental Affairs, within the Sustainable Development Chief Directorate. Ms Ndukwana's duties involve the formulation, review and promotion of national sustainable development policies.

Ms Phuti Mashamaite, Ms Thembelihle Ndukwana, Mr Rendani Ndou, Lubabalo Moweni and Mr Prince Ratsoma manned the exhibition stand.

Dr Thuli Mdluli and Ms Mapula Tshangela of DEA.

Ms Mapula Tshangela delivering her address.

closed by the Chairperson of Portfolio Committee on Science and Technology, Dr Eugene Nhlanhla Nqaba Ngcobo.

Students from different institutions were presenting their masters, doctoral and post-doctoral papers, most of which were from historically disadvantaged institutions.

DEA and its Entities senior managers supported and actively participated during the conference, either as panel members, session's facilitators or as rapporteurs. These included Dr Tanya Abrahamse, facilitating the gala dinner, Professor John Donaldson, facilitating the session: Reducing the Human Footprint (Land cover change and Ecosystem services), Ms Wadzi Mandivenyi, facilitating the session: Understanding a changing planet (assessing impact of Climate Change on marine and coastal ecosystems; Mr Andre Share, facilitating the session on Understanding a changing planet (Monitoring the dynamics of the marine and coastal environment); Dr Thuli Mdluli, a rapporteur for the session: Understanding a changing planet (Greenhouse gas emission); Dr Patience Gwaze, also a rapporteur for the session: Understanding a changing planet (climate predictions); Mr Peter Lukey, conducted the SAfm conference interview and Ms Mapula Tshangela, a rapporteur for the session: Adapting the way we live and a panel member for the high level opening session. Senior managers Ms Dorah Nteo and Mr Stuart Mangold also attended the conference. The overall representation and attendance from DEA branches included the Oceans and Coast, Biodiversity and Conservation, Chemical and Waste Management, Climate Change and Air quality and Environmental Advisory Services.

The DEA also exhibited during the conference together with other institutions including DST, NRF, South African Earth Observation Network (SAEON), ACCESS, University of Pretoria Water Institute, University of South Africa, AISA, South African National Space Agency (SANSA), South African Institute for Aquatic Biodiversity (SAIAB), Development Bank of Southern Africa and South African Risk and Vulnerability Atlas.

The conference successfully achieved the objectives to provide a platform for key global change stakeholders to share current South African research and innovation initiatives and interventions that are related to the global change grand challenge; enhance the uptake of Global Change-related science/research in support of decision making (science-policy interface); facilitate networking for key global change stakeholders in the country and stimulate partnerships to enhance implementation of the Global Change Grand Challenge; and drive the process of building the next generation of young scientists by creating a forum for them to present their research and interact with experienced scientists.

For more information, contact: Thembelihle Ndukwana - TNdukwana@environment.gov.za, or Faith Phooko – FPhooko@environment.gov.za

Sani Pass –

Mokhotlong road construction takes off in Lesotho

On 28 January 2013 the Transfrontier Conservation Areas (TFCA) section of the Department of Environmental Affairs (DEA), led by the Deputy Minister Ms Rejoice Mabudafhasi attended the sod turning event to mark the beginning of the construction of the Sani Pass–Mokhotlong road at Ha Mojakisane, Mokhotlong, Lesotho.

By Thapelo Motebo

Deputy Minister, Ms Rejoice Mabudafhasi, delivering her keynote address.

The 44km road starting from Mokhotlong in Lesotho to Sani Pass border post in South Africa is within the Maloti-Drakensberg Transfrontier and Development Area (MDTP). MDTP aims to address conservation and community development issues in the Maloti-Drakensberg Mountains, a 300 kilometre - long alpine and montane zone along the southern, eastern and northern borders of the landlocked mountain Kingdom of Lesotho and the Republic of South Africa.

DEA facilitated some funding (R40 million Rand) for the road from African Renaissance Fund in order to enable tourism and trading links between Lesotho's north eastern district of Mokhotlong and Durban harbour via Underberg in South Africa. The nature of the terrain and current status of the access route between the border towns of Sani Top and Underberg is such that only four wheel drive vehicles can transverse it. The inhospitable condition of this route has been a cause for concern for the two Governments over the years as it does not only limit potential tourism for the area but also highly stifles trade between the two countries.

The event was graced by 13 Ministers from Lesotho, local chiefs and Lesotho Deputy Prime Minister Mr Mothejoa Metsing. The Deputy Minister first led the SA delegation during the Handing over ceremony of the R40 million in Maseru on the 9 April 2010. The amount was intended to cover topographic surveys, environmental impact assessment and designs. In her opening speech, the Deputy Minister said "During the same year, 2010, as we celebrated our small, R40 million step, we also commenced the implementation of our strategy to position transfrontier parks and conservation areas as southern Africa's premier tourist destinations for 2010 and beyond, today we proudly celebrate the fact that we are living up to that dream. A dream in which we hope that someday we will not only wake up to see tourists streaming across our borders but equally importantly wake up to see our people moving effortlessly across our borders in pursuit of livelihood improving endeavours and experiences".

Construction commences on the Sani Pass–Mokhotlong road at Ha Mojakisane, Mokhotlong, Lesotho.

TFCA Director Mr Ernest Mokganedi and Deputy Minister Ms Rejoice Mabudafhasi.

TFCA Director Mr Ernest Mokganedi, Deputy Minister and MDTP South African Coordinator Mr Rabson Dhlodhlo.

"The Maloti-Drakensberg Transfrontier and Development Area aims to address conservation and community development issues in the Maloti-Drakensberg Mountains."

Rhino poacher sentenced to 40 years imprisonment

By Ziyaad Hassam

Chumlong Lemtongthai, a Thai national, was recently sentenced to 40 years imprisonment in the Kempton Park Regional Court after pleading guilty to charges of trading and exporting rhino horns from South Africa, which were then sold to the underground traditional medicine market in Asia.

Lemtongthai pleaded guilty to 52 counts in terms of Section 80(1)(i) of the Customs and Excise Act, Act 91 of 1964 (making improper use of a licence, permit or other document issued in respect of goods in terms of the Act) and Section 57(1) of the National Environmental Management Biodiversity Act, Act 10 of 2004 (carrying out a restricted activity involving a specimen of a listed threatened or protected species without a permit issued in terms of the Act).

He said that he wanted to pass a sentence that was a "shout to the community and the Asian bloc that these actions will not be tolerated."

Using prostitutes to pose as hunters in order to smuggle the horns out of the country, he is believed to be one of the kingpins of an international rhino horn smuggling syndicate and is the most prominent smuggler to be convicted to date. The sentence, an effective term of 40 years imprisonment is the longest-ever given for poaching in South Africa and has been welcomed by officials.

The Minister of Water and Environmental Affairs, Ms Edna Molewa, welcomed the sentence handed down and stated that she "hopes that this latest rhino poaching sentence will illustrate the seriousness with which the government views rhino poaching and that it will act as a deterrent to individuals and syndicates involved in this crime. As the court ruled, the rhino is part of our pride as a nation and anyone who steals it, or part of it, steals our pride and the laws of our country should deal with such individuals."

Thai national Chumlong Lemtongthai now has the distinction of having been handed the lengthiest sentence for poaching in South Africa: an effective term of 40 years behind bars.

SARS spokesperson Adrian Lackay also welcomed the sentence, affirming that the sentence handed down was "the successful outcome of comprehensive investigative work and co-operation between various state law enforcement agencies in the country." In handing down the sentence, magistrate Prince Manyathi ruled that Lemtongthai had shown no remorse for his crimes. He said that he wanted to pass a sentence that was a "shout to the community and the Asian bloc that these actions will not be tolerated". He went on to refer to rhino as the pride of Africa, stating "I don't want a situation where my grandchildren will only see rhinos in photographs."

The plea agreement, however, exonerated his five co-accused when charges against them were withdrawn after he claimed that they were unaware they were taking part in a crime.

However, Lackay confirmed that investigations are set to continue against those persons associated with Lemtongthai, stating that "the work of SARS, from a tax and civil litigation perspective, will definitely continue and it's not the end."

About the contributor: Ziyaad Hassam

Ziyaad Hassam is the Director: Appeals and Legal Review in the Departments' Legal Services. Prior to his appointment on 1 January 2013, he was employed as the Assistant Director and thereafter the Deputy Director: EMI Legal Support, within the Chief Directorate: Enforcement. He was admitted as an attorney in 2004 and has extensive experience in the fields of criminal law, administrative law and environmental law.

All rise in Court

continued

As part of our efforts in the war against rhino poaching, the Department of Environmental Affairs also used legislation as a tool to curb rhino poaching and in 2012 published and implemented revised norms and standards for the marking of rhinoceros horn and for the hunting of rhinoceros for trophy hunting purposes. These norms and standards have put in place stricter controls for the issuing of rhino hunting permits, hunting of rhino and the transportation of the horn, which resulted in a significant reduction in the number of hunting applications received; from 222 applications in 2011 to 90 in 2012.

In addition, the National Environmental Management Laws First Amendment Bill, aimed at strengthening the regulatory and enforcement provisions to prevent abuse of the hunting permitting system is at an advanced stage in the Parliamentary process.

The National Environmental Management Laws Amendment Bill, 2011 was published for public comment in August 2011. Due to the scope of comments received, a decision was taken by the Portfolio Committee for Water and Environmental Affairs in September 2012 to split the Bill into two Bills: the National Environmental Management Laws First Amendment Bill [Biodiversity amendments] and the National Environmental Management Laws Second Amendment Bill [NEMA amendments]. The Bill referred to in this release is the National Environmental Management Laws First Amendment Bill.

Once promulgated, the Bill will make provision that a person who is involved in an illegal restricted activity, but who does not physically carry out the restricted activity can also be found guilty of an offence. Presently, professional hunters, hunting outfitters and trainers only register in individual provinces and if they are non-compliant in one province, they can apply to operate or continue to operate in another province. To address this loophole, the Bill compels the national registration of professional hunters, hunting outfitters and trainers involved in the hunting industry. In this way, action can be taken against those who facilitate the carrying out of illegal restricted activities by their clients.

The Bill further prescribes that all specimens in transit through the country must be accompanied by the necessary documentation. This important provision will assist in addressing the movement of illegal specimens. In addition to strengthening the regulatory and enforcement provisions in the hunting industry, the Bill also allows the Minister to limit the number of permits that can be issued in order to protect a species. The Bill also makes provision for an issuing authority to suspend, defer or refuse a permit in the following circumstances:

1. Suspension if the permit holder is under investigation for the contravention of a provision of the NEMBA
2. Defer a decision to issue a permit if the applicant is being investigated, until the investigation has been concluded
3. Refuse a permit if there is a detrimental impact on the species
4. Refuse a permit if a person is found guilty of an offence in terms of the NEMBA.

The Minister of Water and Environmental Affairs, Ms Edna Molewa on 25 January 2013 published the Biodiversity Management Plan for black rhinoceros (Diceros icornis) in Government Gazette No. 36096 for implementation. The gazetting of the Management Plan is in terms of the National Environmental Management: Biodiversity Act (NEMBA), 2004 and was developed in accordance with the National Norms and Standards for the Development of Biodiversity Management Plans for Species (BMP-S) published in 2009.

The BMP-S allows for the monitoring and review of actions taken to preserve species in the wild amidst a changing environment. It also requires that, in terms of the NEMBA, all management plans compiled by conservation authorities are approved by the Minister. The newly-published Plan also forms part of government's continued efforts to ensure the survival of South Africa's rhino population. It will contribute significantly to the management and conservation of black rhino, presently under threat from poachers.

The Conservation Plan for the Black Rhino, which forms the basis of the BMP for this species in South Africa, was jointly developed by South African members of the Southern African Development Community (SADC) Rhino Management Group to promote the development and long-term maintenance of viable populations of the various sub-species of African rhino in the wild. It was published for public comment in 2011.

Vox Pops

Members of the public

By Madimetja Mogotlane

"We forget that the water cycle and the life cycle are one" – Jaques Cousteau. In this edition, in recognition of World Water Day and Wetlands Day, we asked staff and the public: How do you conserve water?

1. Zinhle Sikhosana

When I take a bath, I do not fill the whole bath, and when I water plants I do it during sunset so that the water does not evaporate quickly. I also use one bucket when I mop the house, wash my car and the carpets, and lastly I wash dishes twice a day and not every time after using my utensils.

2.Tshegofatso Maswanganyi

I prefer to use water in a bucket to wash my family's car instead of using a hosepipe. When I water plants I do it during sunset because by then the water does not easily evaporate on the ground. I also do laundry once a week.

3. Mary Nchabelen

Water can only be conserved if people learn to use it wisely. For example, at home we use water tanks to collect rain water. After heavy showers we do not use water from the taps but rather from these tanks. After doing laundry or dishwashing we use the remaining water to irrigate our flowers. I do not waste water to welcome spring day as is the norm these days, but discourage people from doing it because without water there is no life.

4. Andile Pont

Here at work we are forced to use as much water as possible for health reasons, but if that was not the case, we would be using used water to wash and rinse dishes. When I am at home, I use an overhead sprinkler instead of hosepipe or micro irrigation system to water my plants. In this way water is easily conserved.

5. Thabo Marem

There is a serious water shortage in South Africa. For example, I come from rural areas and because of scarcity of water, we prefer to do laundry in groups in order to save water. When we use tap water, we make sure that the tap is always tightly closed so that there are no leaks. I also make an agreement with my next door neighbour that when I use my tap, he must wait for me to finish first then he will start using his when I am done. We do it for the sake of our water pipes connection.

6.Samuel Morekhur

When I want to use water, I do not open the tap to drink, but rather pour water in a container. This is the simplest method because it is often said that every drop counts.

Water saving tip:

Take short showers, 5 minutes or less is best. You can also use a low-flow shower head.

Vox Pops continued

DEA staff members

1. Pearl Kerapetse Lekoma: World Heritage Management

Conserving water is easy and it is everyone's responsibility. By taking a shower instead of a bath, using a bucket instead of hose-pipe when washing a car, and watering plants with used water. I also never leave a tap running while brushing my teeth.

2. David Kola: World Heritage Management

We use water for various reasons, for example, to wash different things; to irrigate, to drink and to do many other things. Regarding drinking, I store water in the refrigerator rather than letting the tap run every time when I want a glass of water.

For domestic purposes, I prefer to soak pots and pans instead of letting the water run while I scrape them clean. I also prefer to defrost food particularly meat in the microwave, rather than using running water to thaw it. Furthermore, I prefer to dispose of tissues, insects and other waste in a trash container rather than in the toilet to avoid flushing the toilet unnecessarily. During the rainy season, I collect water in containers, and use this water for gardening, washing the car(s) and doing laundry.

3. Rien Phakoago: Learning and Development

Dishes, laundry, fruits and vegetables should be washed in the same basin for water to be conserved. I also make sure that all members of my family do laundry at the same time in order to conserve some litres. I also make sure that when the tap leaks, I do not hesitate to call a plumber to fix it. I also use a sprinkler, not hosepipe to water the lawn. And if there is any burst of pipe in our street, I make sure that I report it to the municipality so that there is no unnecessary water loss.

4. Steven Moloto: Learning and Development

To preserve water I use used water for gardening and irrigation of plants, and avoid the use of a hosepipe when washing the car. I repair leaking taps because every drop of water counts.

5. Gladys Nthite: Logistical Services

We use a cup to drink instead of leaving a running tap. When I bath my children, I bath them together at the same time, in the same bathtub to conserve water. When it comes to dishwashing, I do not rinse them. For laundry I do not use the washing machine but a basin because using the washing machine will require me to use lots of water.

6. Sarah Modise: Security and Transport

To save water, I choose to take a shower instead of a full bath. I make sure that after using a tap, I close it tightly. When I brush my teeth, I use a glass instead of leaving a tap to. I also collect water that I have used before to rinse fruits and vegetables and then re-use it to water houseplants.

Water saving tip:

Water your yard and plants early or late in the day to reduce evaporation.

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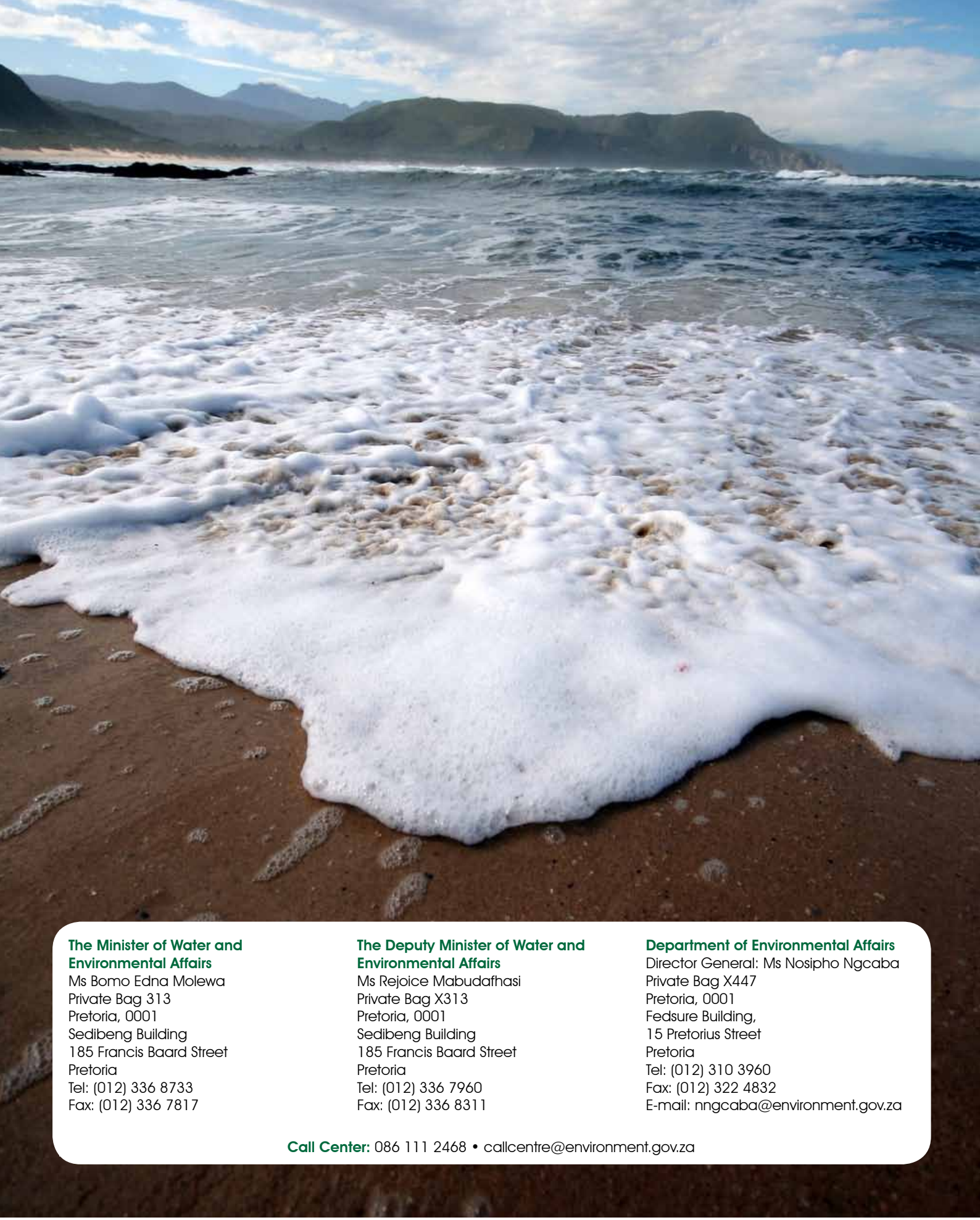
Madimetja Mogotlane is currently an intern in the Media Liaison Sub-Directorate within the Environmental Affairs' Communications Chief Directorate.



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