

# Environment Quarterly

EzemVelo Ngenyanga Ntathu • Mbango wa kotara • Mupo nga Kotara



**On top of their game  
Women in Environment**

**What is Abalone poaching?**



**environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA





# 2019 environment CALENDAR



## JANUARY

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|----|--|----|--|-----|---|
| 2  | February World Wetlands Day                    | 5  | June World Environment Day               | 16  | September International Day for the Preservation of the Ozone Layer |
| 3  | March World Wildlife Day                       | 8  | June World Oceans Day                    | 19  | September International Coastal Clean-up Day                        |
| 23 | March World Meteorological Day                 | 17 | June World Day to Combat Desertification | 22  | September World Rhino Day   |
| 22 | April Earth Day                                | 18 | July Nelson Mandela Day                  | 2-6 | September National Parks Week                                       |
| 12 | May World Migratory Bird Day                   | 31 | July World Ranger Day                    | 21  | November World Fisheries Day  |
| 22 | May International Day for Biological Diversity |    |  |     |   |

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## Dear Valued Stakeholder

In August, South Africa celebrated Women's Month to mark the march to the Union Buildings on 9 August 1956 by 20 000 women against the extension of the Pass Laws to women. This year's celebration coincided with the 25th year of democracy, and universal suffrage being extended to all.

In tandem with the national rhythm, this edition shines the light on the sterling work being led by women in the environmental sector. Deputy Minister Maggie Sotyu led

our celebrations at the Women in Environment engagement that sought to reflect on the integration of women into the work of the sector. Sisters are indeed doing it for themselves, I would quip!

We are proud as the newly-constituted Department of Environment, Forestry and Fisheries to be led by two women of character and fortitude – Minister Barbara Creecy and Deputy Minister Sotyu. To celebrate this, we sat down with the Minister to learn more about who she is, so that we could unpack and share with you her leadership style. I hope you find this very incisive and up-close and personal discussion illuminating.

In July, the Minister and Deputy Minister led various Nelson Mandela Day community outreach activities, including in Sheepmoor in Mpumalanga and Thaba-Nchu in the Free State.

We are alive to the fact that as humanity we continue to consume the Earth's resources at ever increasing and unsustainable rates resulting in rapidly accelerating levels of environmental degradation.

It is only through economic initiatives linked to recycling that we will be able to contribute to sustainable development and inclusive green

economic growth by creating employment, and facilitating infrastructure and skills development.

Besides hosting the annual Waste Khoro to discuss challenges, and ways to respond to the Circular Economy and opportunities it presents, we also hosted the inaugural Coastal Management Lekgotla focusing on the delivery of priority projects linked to our rich coastline.

The Extended Public Works Programme's successful Working on Fire initiative shared a heart-warming welcome by the Minister on their return from fighting fires in Alberta, Canada, for almost a month.

In welcoming our colleagues from Forestry and Fisheries who have been integrated into the environment portfolio, we aim to use this publication to close the information gape between the department and our various stakeholders. A first event was the launch of Arbour Month in partnership with Total South Africa.

Join us as we build a society that lives in harmony with its environment -- for current and future generations.

Sustainably Yours

**Albi Modise**  
**Head of Communication & Advocacy**

## Meet our team

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# HERE'S TO STRONG WOMEN...



**Barbara Creecy**  
Minister of Environment,  
Forestry and Fisheries



**Maggie Sotyu**  
Deputy Minister of Environment,  
Forestry and Fisheries



**Caster Semenya**  
South African middle-distance runner  
and Olympic gold medalist



**Masingita Masunga**  
Motivational and inspirational speaker,  
entrepreneur, producer, TV director  
and philanthropist



**Major Mandisa Mfeka**  
SA's first black woman combat fighter pilot



**Saray Khumalo**  
1st Black African to climb  
Mount Everest



**Kerishnie Naiker**  
1st Indian crowned Miss South Africa  
1997

**Dr Esther Mahlangu**  
South Africa's globally acclaimed artist



**Captain Tshepo Motloutsi**  
Female Master Mariner

May we know them. May we be them. May we raise them.



**environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA





# Celebrating Women in Environment

Every year, in August, our country marks Women's Month. We also pay due and deserved tribute to the more than 20 000 women who marched to the Union Buildings on 9 August 1956 in protest against the extension of Pass Laws to women. A system meant to control women even further and reduce women to passive beings.

2019 sees South Africa enter its 25th year of democracy. A milestone which calls on South Africa to reflect on the strides we have made in ensuring a society that is free of gender inequalities.

Women working in various fields in environment speak about what their jobs entail, their challenges and how they are staying on top of their game.

## Ms Magauta Mboleka

By Veronica Mahlaba

### Fashion Designer Alex Art Market

Magauta Mboleka (34) is the owner of Gold Pot Couture. She is a Fashion Designer from Alexandra Township with a visual display of her work at the Alex Art Market. The Alex Art Market introduced her to business training and she is funded under EPIP. "The stipend boosts me when I have no income."

Being based at the Alex Art Market has helped her attract more customers. "I am most busy from August to December as people want summer clothes and there are many celebrations that people attend during that time," said Ms Mboleka

She adds that she is inspired by Mama Winnie Madikizela-Mandela's fashion sense and offers this advice to aspiring designers: "You can make a living from fashion design as long as you have a passion and love for it, you will go from strength to strength."



## Ms Sakie Kana-Sibanda

By Veronica Mahlaba

### Beaded Jewellery Design Alex Art Market

Owner of Sakheleni African Creations, Ms Sakie Kana-Sibanda grew up looking at old grannies making and wearing beaded jewellery and thought that it was a form of art and culture that should never be erased.

"Being at the Alex Art Market has given me a platform for exposure. The Department of Arts and Culture hosts shows where we are invited to come and showcase our products. People can buy our work from the shows or even request their own unique designs," said Sakie.

"Tourists love our bead work and hopefully Africans will start to cherish the beads that we have in our different cultures and traditions."



# Ms Lettie Mkhobongo

Wastepreneur

By Veronica Mahlaba



Ms Lettie Mkhobongo, owner of Lettie Art Creations from Tembisa has a business of making decorative art and jewelry from recycled waste. She started her business in 1986. "I was a creative and an artistic youngster, so one day I was playing with rubbish and ended up creating something nice to decorate with." That is when she started collecting waste around her neighbourhood and asking kids to not throw away chips and sweets packets. She realised that collecting waste to do her business actually also cleaned the environment, it kept her neighbourhood clean.

Although her business over the years has not grown to the point where she says it's successful, Ms Mkhobongo says it does bring in an extra income in the house. "I can

sell some bags and jewelry and get about R500 to R600. That means I can buy a few chicken braai packs to feed my family."

Ms Mkhobongo's wish is to get exposure, funders and assistance from private sector and the government to be able to push her business forward by hiring four or five people to make more products from the recycled waste. This will mean that these people are getting new skills, will be employed and be able to look after their own families. She would also like to pass on this skill to children, so they can learn to make a living from these recycle business. Maybe one of them can be successful at it. It will also mean that after 3 decades of being in this business she would have succeed.

# Ms Retang Phaahla

Co-founder of Setsong Tea

By Salome Tsoka



Following her win at the first Business Pitching Master Class and Breakfast hosted by the Department earlier this year, Ms Retang Phaahla won an opportunity to attend the Conference on Ethical Biotrade in Paris, France in May. She shares her experience and laments on how she wouldn't have had this opportunity without the Department's support

"The Department's continuous support makes a big difference. The conference exposed me to many different companies in the beauty, food, beverage and pharmaceutical sectors. It was a really good opportunity to network and to hear what big corporate companies are doing with biodiversity. We also got a chance to visit the L'Oréal factory and understand their model, how they work with communities and how they use benefit sharing to help them," she said.



# Ms Cecilia Kinuthia-Njenga

By Veronica Mahlaba

## Head of UNEP South Africa

Ms Cecilia Kinuthia-Njenga is Head of the United Nations Environment Programme (UNEP) in South Africa Country Office and Sub-regional Coordinator Southern Africa covering 15 countries in SADC.

Originally from Nairobi, Kenya, Ms Cecilia Kinuthia-Njenga provides overall coordination of UNEP's environmental activities particularly in South Africa and the Southern Africa region and supports the implementation of environmentally sound policies and practices.

"My work in this country and region covers a wide range of issues regarding the atmosphere, marine and terrestrial ecosystems, biodiversity conservation, wildlife economy, environmental governance, waste management and the green economy. I believe I have made significant contributions in supporting the implementation of international environmental conventions including the UN Convention on Biodiversity, UN Convention on Climate Change and are aligned to National Development Plan and the SDG's and promoting environmental science and information."



**Above:** Ms Karin Ireton explains her point at a discussion on putting into operation the UN Global Sustainable Development Goals. Also in picture are table facilitator, Ms Cecilia Kinuthia-Njenga (middle), head, United Nations Environment Programme (UNEP) South Africa, and Ms Cynthia Tsunyana, Ensign Energy Solutions.

Her role models are the Nobel Peace Prize Laureate Prof. Wangari Muta Maathai, a renowned Kenyan social, environmental and political activist and the first African woman to be awarded the Nobel Prize. Then locally it is followed by the late Minister Edna Molewa.

"I am a strong believer that if we human beings - women and men, youth and children nurture and sustainably manage the environment, it will offer all of us valuable and sufficient benefits and resources," Ms Kinuthia-Njenga stated.

# Ms Silindokuhle Ndlela

## National Pollution Laboratory

By Perfect Hlongwane



Ms Silindokuhle Ndlela is a technician at the National Pollution Laboratory (NPL) stationed at the Walter Sisulu University's (WSU) Mthatha Campus. The lab is a key part of the operations involved in monitoring oceans and coasts under the Department of Environment, Forestry and Fisheries.

At present a total of five technicians are working in the different labs, with plans to increase this number as phase two of the NPL expansion programme kicks in. Ms Ndlela, technician in the micro-biology lab, has a BSc in



Microbiology, is studying towards an MSc in the same field through WSU, and has received on-the-job training such as how to skipper the boat used by the NPL to collect water samples from estuaries such as the one situated in Qolorha in the Eastern Cape.

She encourages young people who have physical science subjects at High School level to consider pursuing a career in what she describes as, "an exciting, rewarding and growing field in the sciences in South Africa."



# Ms Zoleka Filander

## Offshore Benthic Scientist

By Perfect Hlongwane

Ms Zoleka Filander is an Offshore Benthic Scientist, involved in research and the collection of groundbreaking data relating to the ocean and coastal eco-systems.

Zoleka explains that her research and data-gathering expertise is crucial to understanding the oceans and coastal area environment. This is essential in providing information and giving meaning to the Marine Protection Services and Ocean Governance goals of protection and governance, as it would be impossible to monitor what you cannot understand scientifically. A significant part of the work she does as an offshore scientist is geared towards identifying high priority areas for conservation, which is important for implementing strategies and making decisions that keep oceans and coastal area environments sustainable.

"Fishing, mining, oil and gas extraction and conservation interests need to co-exist in a manner that is not only profitable in the short-to-medium term, but also sustainable in the long-term," Zoleka explains.



# Ms Onezwa Mkentane and Ms Anele Varoyi

## Renewable Energy

By Erica Mathye



Ms Onezwa Mkentane (23) and Anele Varoyi (23) from Phillippi in Cape Town say they can fit a toilet system and assist to install a geyser system through the education and practical training experience they have received from the Department.

"I matriculated in 2014 and became a beneficiary of the department's renewable energy training programme in 2016," says Onezwa.

"We were taught how to fit a geyser and toilet systems which proved to me that women can also do these kinds of jobs," she says.



Onezwa would like to use her experience in plumbing to become a civil engineer.

Ms Anele Varoyi (25) says the training programme has helped her become more marketable. The training took six months and the learners were awarded with N2 equivalent certificates after completion.

The interest in renewable energy technologies such as Solar Water Heating is growing throughout the country and national government has committed to massive rollouts under the Green Economy Accord.

# Ms Tenele Ndlovu and Ms Karabo Mokoena

By Salome Tsoka

## Climate Change

Ms Mokoena says being at DEFF has been an insightful learning curve.

"Research is one of the skills that I am learning. I work with technical documents so it's easier to put the theory of science learned at varsity behind them," Ms Mokoena said.

Ms Ndlovu says her experience has taught her that there is a need for more women in climate change.

"The impacts of climate change are mostly felt by indigenous women at grass-root levels but most climate change policy makers and negotiators are men. I believe it's important for gender to be integrated in all the thematic areas of climate change as women bring in practical experience especially those who see decreased agricultural productions and the issue of food insecurity in rural areas," Ms Ndlovu said.



## Ms Yonwaba Atyosi Kgaswane Mountain Reserve

By Veronica Mahlaba

### Which course are you currently studying?

I am registered for a PhD in Geography at the University of Free State.

### What does your research about wetlands entail?

The main focus is on geomorphological versus geological controls on the eco-hydrological characteristics of head water wetlands.

### What are you hoping to find or prove from your research?

I'm hoping to assess and monitor the water budget of Kgaswane Mountain Reserve and establish how geomorphology, geology and eco-hydrology affect the behaviour of different types of wetlands.

### What made you interested in wetlands?

I wanted work on a multi-disciplinary study that involves different experts in the field of natural science.

### Why do you think wetlands are important?

Wetlands store water and slowly release it in dry seasons. They also store carbon which is an important contributor on the greenhouse gas emission cycle.





# Farming project feeds vulnerable children in Limpopo

By Seipati Sentle



**Above:** Ms Linda Nghatsane in the Vuhehli Climate-Smart Agriculture Vegetable & Nursery Project in the form of a vegetable garden.

Linda Nghatsane decided to start a business after seeing extreme poverty in her area of Tzaneen in Limpopo. She holds a Master's Degree in Public Health, is a trained nurse and a former lecturer at Giyani Health College in Limpopo.

After unsuccessful business ventures and many failed attempts in securing finance from corporate banks and companies, she finally got a breakthrough when she was funded by The South African National Botanical Institute (SANBI) with R1.6 million in 2018 to start a Vuhehli Climate-Smart Agriculture Vegetable & Nursery Project in the form of a vegetable garden.

The project is environment friendly. "Because of the climate change effects and the extreme heat wave in Giyani, I used the money to buy a shade which covers the vegetables from the sun. This helped in us reaping fresh and green vegetables." The money was also used to build a care centre and start a vegetable garden where she plants spinach, onions and tomatoes among others, and feeds 160 school going orphans and vulnerable school going children from the area.

"Because the specifics outlines for the proposals by SANBI in the application which wanted the project to be implemented in Mopani area, I now travel almost 200 kilometres a week to attend to the project as I am based in Tzaneen. Because the area is very rural, I also train and teach local women on how to plant and nurse the vegetables, the importance of waste management and water saving methods" she said

Teaching comes naturally for Ms Nghatsane. As a trained health practitioner, she is also a board member of the Desmond Tutu Centre for Leadership and Support, an organisation caring for orphaned and vulnerable children. She provides training for HIV/Aids counsellors

who are volunteers for Africare, a non-profit organisation addressing food security, agriculture, health and Aids across Africa.

She also runs a chicken farm which has 300 laying eggs and has three poultry houses. In the largest house she rears 3 500 chickens, and in the other two 2 500 and 2 000 respectively.

The chickens have proved so popular that hawkers come and collect them at 38 days of age. Most of the chickens are sold alive, saving on processing and refrigeration costs.

Ms Nghatsane said she also secured the financial assistance of the Mpumalanga Department of Agriculture. The department is, through its Comprehensive Agricultural Support –Programme, providing a borehole and three more poultry pens that will more than double the output, ensuring that she will have chickens available more –consistently. The department is also erecting an electric fence around the farm at its own cost.



**Above:** Ms Linda Nghatsane during The OECD Forum. The Forum is a "multi-stakeholder summit" which brings together business and labour leaders, civil society personalities, government ministers.



## About the contributor: Seipati Sentle

Ms Seipati Sentle is a Communications Specialist for the Department of Environment, Forestry and Fisheries.



# Nelson Mandela Day 2019

“IT IS IN YOUR HANDS TO CREATE A BETTER WORLD FOR ALL WHO LIVE IN IT.”

- Nelson Mandela -

A little helping hand goes a long way. Every year on International Nelson Mandela Day, the world celebrates the birthday of the world’s famous grandfather and also offers a helping hand to those in need. Tata Madiba was the country’s first black head of state elected in a democratic election in 1994. He sadly passed away on 5 December 2013, at the age of 95.

The Department celebrated the birthday of Tata Madiba with the needy of South Africa. Some of the donations included refurbishing classrooms for impoverished schools and encouraging cleaning up neighbourhoods. The message from Minister Creecy and the Deputy Minister is clear that Tata’s legacy should be kept alive not in one day of kindness but in making everyday a Mandela Day.

## Minister in Sheepmoor, Mpumalanga

By Salome Tsoka



## Deputy Minister Soty in Gugulethu, Cape Town

By Tshego Letshwiti





# TAKE ACTION, INSPIRE CHANGE, MAKE EVERY DAY A MANDELA DAY.



## Sasolburg, Free State with Coca-Cola

By Veronica Mahlaba



## Deputy Minister in Thaba Nchu, Free State

By Veronica Mahlaba



# How do you celebrate Mandela Day?

By Salome Tsoka and Veronica Mahlaba



**Mr Moses Rapulane**  
Phalaborwa, Limpopo

Nelson Mandela Day gives me an opportunity to dedicate time as a student to help out in my community. I helped an NGO distribute blankets in my community of Phalaborwa.

These people live out of nothing and since it was winter, the blankets kept them warm. Everyone deserves to be dressed up and warm during this time of year.



**Mr Mbhekeni Mkhathswa**  
Sheepmoor, Mpumalanga

We live in an impoverished area where many households are dependent on firewood as a source of energy.

In my efforts of keeping with this year's Nelson Mandela Day theme of "Taking action against poverty", I went out with my truck and collected firewood to keep many households warm.



**Mr Ericsson Seepe**  
Janefurse, Limpopo

One day I would like to build a tertiary college in honour of the great man, Nelson Mandela. Many people in this country can't afford to go to school and we end up with a high number of dropouts.

My college will provide financial assistance and bursaries for students who can't afford.

## Tips on how to use your 67 minutes for Mandela Day

By Tshegofatso Ndhlovu

**T**aking a stand against poverty is the message that the Nelson Mandela Foundation is pushing for their 2019 celebrations, as such citizens are encouraged to take part in activities that will help the poor in any form possible as part of their 67 minutes.

Here are some few things that you can do along with your family and friends as part of your 67 minutes to honor Nelson Mandela while also eradicating poverty.

- Donate money, toys and clothes to The Children's hospital trust

The Children's hospital trust is an organisation that looks after sick children who come from poor communities. They mainly rely on donations.

- Gather around friends and family to prepare some food packages that can be given out to the homeless people or people in need.
- Donate bricks or volunteer your time to help build structures at Rising Stars day care.

Rising stars day care is a non-profit organization that looks after children whose parents are facing difficult circumstances. They are currently in need of building material to build a sick room.

- Host a sanitary pads drive around poor communities
- Visit a children's hospital ward and spend time with the children by either playing with them, reading books or donating toys.

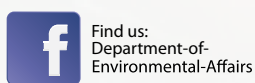


# South Africa's 10 sites inscribed on the UNESCO World Heritage List

1. iSimangaliso Wetland Park;
2. Fossil Hominid Sites of South Africa (i.e the Cradle of Humankind, Taung Skull Fossil site and Makapan Valley);
3. Robben Island Museum;
4. Maloti Drakensberg Park;
5. Cape Floral Region Protected Areas;
6. Mapungubwe Cultural Landscape;
7. Richtersveld Cultural and Botanical Land scape;
8. Vredefort Dome;
9. ‡Khomani Cultural Landscape; and
10. Barberton Makhonjwa Mountains



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**environmental affairs**

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# Waste Khoro: Time for talk is over

By Salome Tsoka



**Above:** The DDG for Chemicals and Waste Management, Mr Mark Gordon at the 6th annual Waste Khoro: Asbestos and Land Remediation Summit.



**Above:** Over a thousand waste industry stakeholder came together for the Waste Khoro Summit held at Mittah Seperepere, Kimberley in the Northern Cape.

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**“The key thing following this summit is to look at how we reunite, reengineer reposition and re-posture the waste sector.”**

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“Time for talk, philosophy and ideology is over, it’s time for all of us to roll up our sleeves and get down and dirty.” These were the words said by the DDG for Chemicals and Waste Mr Mark Gordon at the 6th annual Waste Khoro: Asbestos and Land Remediation Summit.

Hosted by the Department under the theme Good Green Deeds Towards a Recycling Economy and Sustainable Land Remediation at the Mittah Seperepere Convention Centre in Kimberley from the 18-20th September 2019, the summit brought together over a thousand waste industry stakeholders to deliberate on a number of waste management issues.

Speaking at the summit, Mr Gordon said that not enough waste was being recycled and all stakeholders at the summit needed to work together to change the narrative of waste going to landfill sites.

“There are many challenges, this summit is almost the beginning of the road and there is a lot that needs to be done. The key thing following this summit is to look at how we reunite, reengineer reposition and re-posture the waste sector to make a meaningful contribution to the GDP of South Africa and to change the face of waste in the country,” he said.

Over the course of the three-day summit, stakeholders engaged in intense break away sessions focusing on asbestos and land remediation, alternative treatment technologies, the good green deeds programme, chemicals awareness, the chemicals and waste economy, SMME’s development and support, integrated pollution prevention as well as waste management.

Resolutions made at the summit following the break-away sessions have been summed up into six broad areas which include policy, legislation and regulations, technology, research and development, education, capacity building, awareness and advocacy, funding, finance and investment, infrastructure services and collection as well as partnerships.

Sol Plaatje Mayor, Mr Patrick Mabilo has encouraged stakeholders to honour the commitments and resolutions made at the summit and for stakeholders to continue to play a positive role in changing the image of waste in the country.

South African Waste Pickers Association, Chairperson Mr Simon Mbatha applauded the Department for its continued efforts to include waste pickers in the various waste management deliberation spaces such as the Waste Khoro Summit as they play a huge role in the country’s recycling.

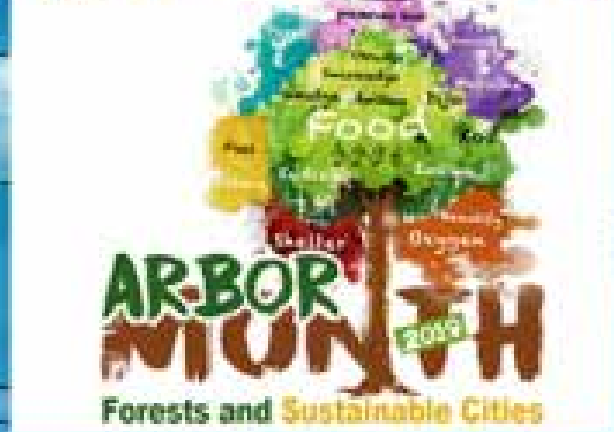


## **About the contributor: Salome Tsoka**

Ms Salome Tsoka holds a BA Degree in Journalism from the University of Johannesburg and has been writing for as long as she can remember. She is a Senior Communications Officer in the Chief Directorate: Communications.



# National



agriculture,  
forestry & fisheries  
environmental affairs







# All About Abalone



## 1 What is Abalone?

South African abalone, known locally as perlemoen (from the Dutch meaning 'mother-of-pearl'), is endemic to the shores of South Africa. This economically important species has a high market value in Asia. It is one of the most sought-after invertebrates in the country.

## 2 What are they used for?

The meat (foot muscle) of abalone is used for food, and the shells of abalone are used as decorative items and as a source of mother of pearl for jewellery, buttons, buckles, and inlay. Abalone is a delicacy in the Far East, specifically the Peoples Republic of China (PRC). There are 56 species of abalone, of which five are found in South Africa. Of these five, one is the *Haliotis midae*, which is renowned as being one of the tastiest. Dried abalone is considered one of four marine precious delicacies in Chinese culture, along with shark fins, sea cucumber and fish maw.

## 3 Where are they found?

South African abalone has a wide but patchy distribution. It is distributed along parts of the Eastern Cape coastline through to Saldanha Bay in the Western Cape. South African abalone is generally found in shallow coastal waters and seems to prefer rocky surroundings.

## 4 Why are they being poached?

Although there is a certain amount of abalone that can be harvested legally with the necessary permits, the illegal harvesting or poaching takes place due to a huge demand and the concomitant monetary value of abalone. Due to the lack of other employment opportunities and poverty in the Western Cape coastal regions, abalone poaching has become a pandemic. This is exacerbated by the proliferation of drugs in small communities, high dropout rate in schools and the perceived economic opportunities attracting migration from other Provinces and to a certain extent, foreign nationals. Entry into this illicit market may be to access an income, but once in the "business", the wealth generated and lifestyle provided makes it difficult for individuals to extract themselves from this illegal activity. Very few existing work opportunities exist and the criminal syndicates exploit these poor communities lack of income.

## 5 Who are the poachers?

Anyone who harvests abalone illegally is a poacher. The poachers are however only one group within the criminal syndicates involved in this organised criminal activity. Within the illegal supply chain there are divers, transporters, dryers and those that plan, arrange and execute the illegal exports.



environmental affairs

Department  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA



# Abalone Farming



Due to the high value of the illicit trade, extortion, coercion and intimidation is common practice within the coastal communities and towards law enforcement and conservation organisations. Poaching also has a negative impact on and disrupts the tourist-based economy within the coastal regions. Tourism is one of the highest employers in most coastal towns and has the highest employment leverage factor. It is estimated that 1 in 10 people in the Western Cape work within the tourism sector. The fear of reprisal or ostracizing in the communities negates the willingness of community members to report such activities.



## 6 What economic value do they have?

In examining the legal market, local prices are as follows in relation to the abalone resource:

Abalone - In Shell	R470-00 p/kg
Abalone - Shucked (out of shell) (Wet)	R1566-00 p/kg
Abalone - Dried (Half / Fully)	R5220-00 p/kg

It is difficult to assign an economic value to the black market / illegal activities. The illicit trade in abalone results in a significant loss of revenue in terms of Customs and Excise through the illegal exportation, false declarations and non-declaration of income. This is further exacerbated by the loss of revenue through the reduction in legal quotas and the non-payment in levies to Fisheries on the poached abalone (approximately 3 000 tons per annum). Furthermore, the availability of poached abalone undermines the overall price of the legal abalone, thus having a negative impact on the legitimate business trade. This amounts to a loss to the country of approximately R4 698 000 000 per annum, if one calculates it based on shucked weight, presuming there is no dried abalone involved. Should there be dried abalone (which happens in almost all cases) the calculated loss will be threefold.

## 7 Which communities are greatly affected by abalone poaching?

Coastal communities in those areas close to where abalone is found within the coastal waters are the communities mostly affected.

## 8 Why is it important for people to report abalone poaching?

The harvesting method used by the poachers and the fact that poachers harvest any available size of abalone disrupts the growth and multiplication of the species and ultimately the sustainability of the resource. Poaching also disrupts the ecosystem and puts strain on dependent species.

## 9 Where can abalone poaching be reported to?

Cape Town VMS room at 0214023076 or 0214023077 and Hermanus operations center at 0283132703 or 0283122609

## 10 What is the importance of the survival of abalone for South Africa?

Abalone fulfils an important ecological role as a grazer in the kelp beds of South African coastal waters, contributing to the integrity of biodiversity of the coastal zone. It is also the most important species (in terms of value) for mariculture in the coastal zones, an important foreign currency earner and historically contributed to livelihoods of coastal communities. The most recent stock assessment for abalone indicates a continued decline in the wild stock, with the likelihood of extinction becoming a reality within the next two decades. The exploitation of abalone has resulted the closing of the recreational harvesting of abalone and the drastic reduction in commercial quotas.



# Securing a future for nature in Africa

By Zibuse Ndlovu



**Above:** Over 150 representatives of governments, non-governmental organizations, private sector and local and indigenous group representatives attended the forum, with an objective of gathering African voice on securing a future for nature, the people and future generations across Eastern and Southern Africa and to support success of the global processes.

“Ensuring that there is a future for nature in Africa is an integral part of the socio-economic transformation of the continent over the next 50 years. This will require strengthened partnerships between governments, private sector, NGOs and civil society in line with the Sustainable Development Goals principle of leaving no one behind.” These were the remarks by the Director-General of the Department of Environment, Forestry and Fisheries, Ms Nosipho Ngcaba during the International Union for Conservation of Nature (IUCN) Regional Conservation Forum in Johannesburg on 23-25 July 2019, convened under the theme: **Securing a Future for People and Nature in Eastern and Southern Africa.**

**M**s Ngcaba said South Africa was honoured to have been chosen among other capable countries in the region to host the Regional Conservation forum. “This gathering is coming at a time when South Africa is celebrating 25 years of our democratic dispensation premised on the constitutional rights of a safer and healthy environment for all, and environmental rights and justice for current and future generations,” said Ms Ngcaba who delivered the opening remarks on behalf of Minister Barbara Creecy.

Ministers responsible for environment from countries such as Uganda, Rwanda, Ethiopia, Mozambique and Kenya attended the forum, with an aim of consolidating a common agenda to position and safeguard the region’s long-term conservation interests while delivering results for people and nature.

Africa’s extraordinary richness in biodiversity and ecosystem services, and wealth of indigenous and local knowledge, comprises a strategic asset for sustainable

development in the region. This notion was reaffirmed recently at inaugural African Wildlife Summit in Victoria Falls, Zimbabwe, which was hosted by the African Union in collaboration with UNEP. South Africa has also embarked on the implementation of the Wildlife Economy Programme, supported by its National Biodiversity Economy Strategy.

South Africa’s vision 2030 is for an effective climate change response and just transition to a climate-resilient and lower-carbon economy and society.

“This meeting is very important as it forms part of the other regional meetings that are held across the globe in preparation of the World Conservation Congress which is going to be held in France, June 2020. The forum offers us an opportunity to generate and review motions that have an important bearing to the region. We value and acknowledge the role that the IUCN plays in the global environmental governance,” said the Department’s Deputy Director-General for Biodiversity, Mr Shonisani Munzhedzi.



## About the contributor: Zibuse Ndlovu

Zibuse Ndlovu is the Assistant Director: Editorial Services at the Department of Environment, Forestry and Fisheries, within the Communications Chief Directorate.



# Producing energy from plant matter

## What is biomass energy?



SUN



BIOMASS ENERGY IS A RENEWABLE SOURCE OF ENERGY THAT IS FOUND IN PLANTS AND ANIMALS. PLANTS TAKE ENERGY FROM THE SUN THROUGH PHOTOSYNTHESIS AND USE IT TO PRODUCE CARBOHYDRATES. THE UNUSED CARBOHYDRATES ARE STORED AS BIOMASS. IN THIS WAY, ENERGY FROM THE SUN IS STORED IN PLANTS.

WHEN THE PLANTS DECAY OR ARE BURNED, THEY RELEASE THE STORED ENERGY. BIOMASS ENERGY IS SOMETIMES CALLED A "GREEN" ENERGY SOURCE, BECAUSE IT IS LESS HARMFUL TO THE ENVIRONMENT THAN NON-RENEWABLE FOSSIL FUELS.

## Make your own biogas

### YOU WILL NEED:

- 30 DRIED BEANS
- 3 AIRTIGHT PLASTIC BAGS
- WATER, STICKY TAPE AND BOWL

**1** SOAK THE BEANS IN WATER OVERNIGHT.



**2** PUT 10 BEANS INTO EACH PLASTIC BAG. REMOVE ALL THE AIR FROM THE BAG, THEN SEAL IT WITH STICKY TAPE.



**3** PUT ONE BAG IN A SUNNY PLACE, ONE IN A WARM SHADY PLACE AND ONE IN A COOL DARK PLACE.

**4** LEAVE YOUR BAGS FOR A WEEK ...

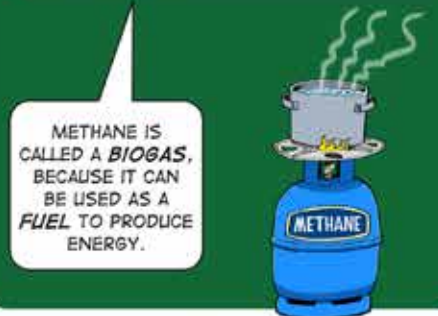
MON	TUES	WED	THURS	FRI	SAT	SUN
X	X	X	X	X	X	X
X						

... AND THEN OBSERVE ANY CHANGES THAT HAVE HAPPENED.



## WHAT'S HAPPENING HERE?

AS THE BEANS DECAY, THEY PRODUCE CARBON DIOXIDE AND METHANE GAS.



METHANE IS CALLED A **BIOGAS**, BECAUSE IT CAN BE USED AS A **FUEL** TO PRODUCE ENERGY.

## How "green" is biomass energy?



BIOMASS ENERGY SOUNDS LIKE SUCH A FANTASTIC SOLUTION FOR OUR ENERGY NEEDS ... WHAT COULD POSSIBLY GO WRONG???

IF **TOO MUCH** LAND IS USED TO GROW CROPS FOR BIOFUELS, THIS COULD **DAMAGE** NATURAL ECOSYSTEMS. MORE WATER WILL BE USED AND THERE WILL ALSO BE LESS LAND AVAILABLE TO GROW FOOD. THIS WILL MAKE OUR FOOD PRICES INCREASE.



WHEN BIOMASS IS BURNED TO PRODUCE ENERGY, THIS CAN PRODUCE HARMFUL AIR **POLLUTION** AND GREENHOUSE GASES. THE PRODUCTION OF BIOMASS ENERGY MUST THEREFORE BE CAREFULLY MANAGED.



Section 24 of the South African Constitution states: "Everyone has the right to an environment that is not harmful to their health or well-being."



# GET TO KNOW TREES!



Trees are able to communicate and defend themselves against attacking insects.

Scientists have found that trees can flood their leaves with chemicals called phenolics when the insects begin their raid.

They can also signal danger to other trees so they can start their own defense.

Trees help fight the effects of climate change by absorbing carbon dioxide and other pollutant particulates, then store carbon and emit pure oxygen.

A tree can absorb as much as 22 kilograms of carbon dioxide per year and can sequester 1 ton (907kg) of carbon dioxide by the time it reaches 40 years.



The General Sherman, a giant sequoia, is the largest tree (by volume) in the world, standing **83.8m tall** with **52,000 cubic feet of wood (1,486.6m)**.



Trees are some of the oldest living organisms on earth, for example, a live oak can live up to be over **500 years**. The world is home to just over **60 000** different tree species.

There are around **3.04 trillion** trees on earth; however **3.5 billion to 7 billion** of these trees are cut down every year. Trees are able to communicate and defend themselves against attacking insects.



**The yellowwood tree**, also called the real yellowwood (*Podocarpus latifolius*) is the National Tree of South Africa.



An average tree is made up of **99% dead cells**, only around **1%** of it is alive at any time, consisting of the leaves, root tips, and pith (a thin layer of under bark that acts as a food delivery system) One large tree can provide a day's supply of oxygen for up to four people.



The world is home to just over **60 000** different tree species. There are around **3.04 trillion** trees on earth; however **3.5 billion to 7 billion** of these trees are cut down every year.

The age of a tree can be determined by the number of growth rings. The size of the growth ring is determined in part by environmental conditions such as temperature and water availability.

Trees and vegetation reduce runoff and improve water quality by absorbing and filtering water.

Planting trees in public spaces and gardens can increase the aesthetic appeal of neighbourhoods and the economic value of houses and property.

Leaves appear green because of chlorophyll which absorbs red and blue light energy, causing the green energy to bounce off the leaf's surface. Scientists have found that older bigger trees share nutrients with smaller trees, which later repay them back when they have developed.

In South Africa, only **0.4%** of our landmass is covered by natural forest. That's only **500 000 ha**, by **39 million** ha of savannah systems

Different parts of the tree grow at different times of the year. A typical pattern is for most of the foliage growth to occur in the spring, followed by trunk growth in the summer and root growth in the autumn and winter. Not all trees follow the same pattern.

There are three main types of trees that grow on South African plantations; **pine, eucalyptus and wattle**. Trees create economic opportunities, for instance, fruit harvested from community orchards can be sold, thus providing income.

Small business opportunities in nursery establishment, green waste management and landscaping arise when cities value mulching and its water-saving qualities. The largest and most famous forests in South Africa are Knysna and Tsitsikama Forests of the Southern Cape.

# TREES OF 2

1

## SCLEROCARYA BIRREA



### TREE PROFILE

#### FACTS AT A GLANCE

**SCIENTIFIC NAME:** *Sclerocarya birrea*  
**COMMON NAME:** Marula  
**SIZE:** Medium to large tree of 9-18 m  
**WATER REQUIREMENTS:** Drought tolerant  
**LEAVES/FLOWERS:** Leaves are alternate, compound with sharply pointed leaflets, mostly crowded at the end of the branches. Female and male flowers are borne on separate trees.  
**FEATURE:** A prolific fruit bearer, single tree can produce up to 500kg of fruit per year.  
**MAINTENANCE:** Low maintenance

### DESCRIPTION

**ORIGIN:** The marula tree is native in most parts of East, West, North, Southern and Central Africa. In South Africa it is more dominant in the Limpopo province in the Ba-Phalaborwa area. It typically grows in woodlands, on sandy soils.

**ECOLOGY:** The flowers of the marula tree are pollinated by various insects. Game animals such as elephants, giraffe, antelope and zebra browse the leaves of the tree. As a prolific fruit bearer, various living organisms including humans feed on the marula fruits. The larval stage of the beautiful green African moth *Argema mimosae* feeds on marula leaves.

**USES:** A decoction of the bark treats dysentery, diarrhoea, rheumatism and has a prophylactic effect against malaria. The bark is an excellent remedy for haemorrhoids. Roots and bark are also used as laxatives. A drink made from marula leaves is used for the treatment of gonorrhoea.



10 Benefits Of Marula Oil







FLOWERS



LEAVES



Sometimes one finds a tree with a wound, probably caused by a traditional healer or someone who collected material for medicinal use. The wood is used for furniture, panelling, flooring, carvings and household utensils like spoons. The inner layer of bark makes a strong rope. Drums and yokes for certain animals are made from the wood of this tree. In Namibia some people use the wood for sledges. Boats are also made from the trunk. Red-brown dye can be produced from the fresh skin of the bark. The gum, which is rich in tannin, is mixed with soot and used as ink.

**GROWING:** This tree grows easily from seed sown in washed river sand in spring. It can also grow from a truncheon planted in the early spring. It is fast-growing, with a growth rate of up to 1.5 m per year. This tree is very sensitive to frost and grows best in frost-free areas under warm conditions. If planted in areas where there is mild or occasional frost, it must be protected at least during the first few growing seasons. It would be wise to plant it on the northern side of a building where there is always enough light, for example.

**APPEARANCE:** They are deciduous trees that can grow up to 18m tall. The marula tree is a single stemmed tree with a wide spreading crown. It is characterized by a grey mottled bark. Marula trees are dioecious – the male and female trees are separate. One can usually spot the trees by the gathering of animals below them – warthogs, waterbuck, giraffe, kudu and elephants all assemble beneath the dappled branches in search of fallen fruits.

### FLOWERS, FRUIT AND LEAVES:

Male and female flowers are borne on separate trees, the flowers of male plants producing pollen and the female flowers producing the fruit for which the tree is so well known. The marula fruits are an excellent source of vitamin C – they're approximately the size of a small plum, fleshy and pale yellow-green in colour. The leaves have a watery- latex consistency and produce a strong, resinous smell when they are crushed. They are also compound and divided with a terminal leaflet.

### REFERENCES:

Went, F. A. 1949. A field guide to the trees of southern Africa. 2nd edition. Witwatersrand, 225. 114. London.  
 South African Forestry Commission. 2002. Trees of southern Africa. Pretoria, Cape Town, Durban, Grahamstown, Port Elizabeth, Port Shepstone, East London.  
 Wiersma, J. H. 1979. A field guide to the trees of southern Africa. 2nd edition. Witwatersrand, 225. 114. London.  
 Wiersma, J. H. 1979. A field guide to the trees of southern Africa. 2nd edition. Witwatersrand, 225. 114. London.

# 2

## PHILENOPTERA VIOLACEA

## APPLE-LEAF



### TREE PROFILE

### FACTS AT A GLANCE

**SCIENTIFIC NAME:** *Philenoptera violacea*  
**COMMON NAME:** Apple-leaf  
**SIZE:** Medium to large tree- up to 15m  
**WATER REQUIREMENTS:** Drought tolerant  
**LEAVES/FLOWERS:** Leaves are large, hard with a rough texture, shiny above and grey-green underneath. Flowers are white and pink to deep violet, scattered and sweet scented  
**FEATURE:** It is also known as a rain tree, as the ground around the tree is often damp, a result of falling secretions from spittle-bugs that thrive on the tree  
**MAINTENANCE:** Low maintenance

### DESCRIPTION

**ORIGIN:** South Africa is home to three species of *Philenoptera*, which are found in four of its provinces namely Limpopo, Mpumalanga, KwaZulu Natal and Eastern Cape. The apple-leaf tree is distributed in three provinces of South Africa and they include Limpopo, Mpumalanga and KwaZulu Natal. The tree is often found in low-altitude woodland and on the banks of seasonal streams. It prefers sandy and alluvial soils.

**ECOLOGY:** The apple-leaf tree is a frost sensitive and drought resistant. The tree is browsed by a variety of game animals such as elephants and giraffe. Its sweet scented flowers and nectar attract a lot of bees and it is often used by cavity nest birds such as barbets, rollers and owls.

**USES:** The wood of *P. violacea* is often used to make carvings and tool handles as well as dugout canoes.

The tree is also used for traditional remedies where most parts of the tree are used for gastro-intestinal problems and powdered root-bark is used to treat colds and snake bites.

**GROWING:** Apple-leaf tree is a good garden subject. Propagation of the tree is by seed. The seeds must be first soaked in hot water, left overnight and planted the next morning in seedling trays.

Placing a clear glass over the seedling tray can speed up germination. Plants should be kept in a shade for three to five weeks before moving into full sun. Although it grows slowly, it is an interesting ornate tree which gives a stunning display when in flower.

**APPEARANCE:** This tree grows up to 15m tall and has a wide-spreading canopy, dense rounded crown. The main stem is tall, straight and bare, occasionally bent and twisted. The bark is grey and flaking on older branches and stem, but smooth, light grey and covered with dense hairs on younger branches.

### FLOWERS, FRUIT AND LEAVES:

Flowers are scattered and vary from white-pink to bluish-pink and deep violet. Flowers carry a sweet scent and appear between September and December. Fruit is a flat pod, non-splitting, relatively large, hairless with tapering at both ends. Leaves are large, hard with rough texture, glossy above and pale green or grey green underneath.



The apple-leaf tree



### REFERENCES:

Went, F. A. 1949. A field guide to the trees of southern Africa. 2nd edition. Witwatersrand, 225. 114. London.  
 South African Forestry Commission. 2002. Trees of southern Africa. Pretoria, Cape Town, Durban, Grahamstown, Port Elizabeth, Port Shepstone, East London.  
 Wiersma, J. H. 1979. A field guide to the trees of southern Africa. 2nd edition. Witwatersrand, 225. 114. London.  
 Wiersma, J. H. 1979. A field guide to the trees of southern Africa. 2nd edition. Witwatersrand, 225. 114. London.





# Minister Barbara Creecy: A force to be reckoned

By Salome Tsoka

Images by Zibuse Ndlovu

**B**oasting a remarkable streak in the Gauteng legislature, as MEC of the education, finance, and sports, recreation, arts & culture departments, Minister of Environment, Forestry and Fisheries Barbara Creecy is a force to be reckoned with. Under her impeccable leadership as an MEC in the Gauteng legislature, the finance and e-government departments won 12 awards for excellence and innovation.

With an Honours Degree in Political Science from the University of the Witwatersrand and a Master's Degree in Public Policy and Management from the University of London, Minister Creecy also played an important role in the anti-apartheid movement. As a student at Wits in the late 1970's, she also joined the underground structures of the ANC and continued to fight the oppressive regime.

Minister Creecy grew up in Johannesburg and worked for the Civic Desk of the United Democratic Front. She later started working with an NGO that offered training and organisational development support to trade unions and community structures before she joined the Gauteng legislature in 1994.

For the first time since the country's first democratic elections, the South African cabinet is 50% female which marks a great milestone for leadership in the country. Minister Creecy is at the helm of the environment portfolio, mandated to ensure that citizens have a right to an environment that is not harmful to their health or wellbeing, and to have the environment protected for the benefit of present and future generations.



## How did you feel about being appointed to the environment portfolio?

I was very excited with the appointment. As you know, environmental matters are key issues facing the globe. Climate change, environmental degradation and loss of biodiversity are threatening our economic and social security. This is a very important portfolio and it really poses really complex challenges about how we are going to tackle poverty, inequality and unemployment in the current phase in relation to how we would want to build a sustainable growth trajectory.

## How would you describe good leadership?

At this particular point in our history we have a very important task to re-establish value-based leadership in our country. Over the last few years we have seen a slide away from leadership that is service orientated, open and accountable to the public. I think that re-establishing a servant leadership and a selfless leadership is very important. The other issue is we need to be re-energized to tackle what I call the wicked problems (poverty, inequality, unemployment). We need to be re-energized to find new ways to tackle these wicked problems.

The other thing is, as South Africans, we can be very hard on ourselves. I think it's important for leadership to be articulating a vision of where we want to go to.

Sometimes we can be so overwhelmed by the immediate problems that we lose sight of where we want to go to. And if you don't know where you are going, any road can take you there. So, I think it's important we restate the vision of the national development plan.

To restate a vision of a society where people don't go to bed hungry, where millions more young people have jobs, where ten year olds are able to read for meaning. This is what government has been about since 1994. We need to believe that these things are possible and we need to find the dedication and energy to do it.

## How would you best describe your leadership style?

I like to work with the senior team to develop a vision of where we're going. I think it's very important to develop that vision together as a team and then to drive the achievement of that vision. So, once we've decided this is where we're going to go, I will spend my time and energy making sure that we move along the different sectors and we achieve the things we should do. This involves a lot of problem-solving.

## What advice would you give young women aspiring for a future in leadership?

The best advice I can give is don't give up. It is not easy and there will be a lot of factors, events and people who will try and deter you. But the key thing is for you to keep going and not give up, if that's something that you want to do.

## Where do you draw your inspiration and motivation?

I think we've got a wonderful country and we've got the most incredible people. We have some really good policies, we are incredibly well-respected in the continent and the world. I'm inspired to live up to the aspirations that people have of us.

Yesterday (On Nelson Mandela Day) I joined World Wide Fund for Nature, when they were having a clean-up of the Liesbeek River in Cape Town and they had a group of twelve year olds there from Cypress Primary School.

They were explaining to these children why it's important to clean up rivers and neighbourhoods. And you know when you get out there and you see this energy, then I feel we have to do the best that we can for this future generation. It's a tremendous privilege to be in the position I'm in and to be given the right to make a difference. As such, while I'm here, I want to do the best job that I can.



**Above:** Minister Barbara Creecy has a hands on approach and says she likes to work with the senior team to develop a vision of where to take the department.

## Interesting facts about the Minister

- Minister Creecy is an avid reader who enjoys a good crime thriller with a female detective in the lead.
- She also likes to delve into history books by reading biographies of leaders who have changed the course of history.
- She also enjoys exercising, yoga and swimming when the weather is warm.

# DEFF signs MoU with Institute of Waste Management SA

By Veronica Mahlaba and Tshegofatso Ndhlovu



**Above:** DEFF and IWMSA sign a Memorandum of Understanding at IFAT Africa in Midrand, Gauteng.



**Above:** Ms Lettie Mkhobongo, owner of Lettie Art Creations was there to showcase her decorative art and jewellery made from recycled waste.

The Department of Environment, Forestry and Fisheries (DEFF) signed a Memorandum of Understanding with the Institute of Waste Management of Southern Africa (IWMSA) during IFAT Africa on 09 - 11 July 2019 at Gallagher Convention Centre in Midrand.

The event hosted several master classes and dialogues, including one on the Circular Economy themed: Developing a Resource Efficient Economy, where the MoU was signed.

The Deputy Director-General for Chemicals and Waste Management, Mr Mark Gordon said the Department was excited to have signed this MoU with IWMSA.

"We have been having a discussion on transformation in the institute and how government can assist with the various challenges facing the waste industry. Signing the MoU is significant. We will look at collaboration in a number of areas in South Africa, the sub-region, Africa and also internationally. We will look at other areas of opportunity to support the Institute with its other partners across

**"The Circular Economy is about continuing to keep resources alive within the economy when a product has reached the end of its life."**

the world. There are a number of areas of collaboration in terms of the legislation. The enablers around regulations need to help industry in terms of transformation around the circular economy, around sustainable development and around waste management in general," said Mr Gordon.

IWMSA President, Mr Leon Grobbelaar said the signing was a momentous day that took them closer to the regulator.

"The regulator is there to regulate the Institute and make sure our members, public and private, comply. We talk about the circular economy and how we can enforce the circular economy.

The only way to do this is through the support of the Department."

Chief Director: Chemicals and Waste Policy, Monitoring and Evaluation at DEFF, Mr Kgauta Mokoena said the Circular Economy is about continuing to keep resources alive within the economy when a product has reached the end of its life, so it can be productively used again.

"A transition to a circular economy shifts the focus to reusing, repairing, refurbishing, re-purposing and recycling. It requires industry redesigning and complete supply chains for resource efficiency and circularity. We need to create markets responding to shifts in consumption patterns towards using, reusing, sharing and more circularity," explained Mr Mokoena.

Known as Africa's leading trade fair for water, sewage, refuse and recycling, IFAT Africa 2019 was the 3rd edition of the exhibition that takes place every two years with a focus on environmental technologies and services.



## About the contributor: Tshegofatso Ndhlovu

Tshegofatso Ndhlovu is an Inservice Trainee in the Chief Directorate: Communications. He is studying towards a Diploma in Journalism at the Tswane University of Technology. He is also an avid tennis fan.



# DEFF to phase down harmful greenhouse gases

By Keketso Modiba  
Images by Zibuse Ndlovu

**A**s part of the implementation of the enabling activities for the Hydrofluorocarbon phase down in South Africa, the Department of Environment, Forestry and Fisheries (DEFF) in collaboration with United Nations Industrial Development Organisation (UNIDO) hosted a legislative consultative workshop on the Kigali Amendment on 25-26 June 2019 at Birchwood Hotel, in Johannesburg.

The workshop comprised of stakeholders from key institutions in the Environment fraternity, National Ozone Units as well as international experts. The purpose of the event was to provide an overview of the Kigali Amendment, provisions and obligations arising from the Amendment.

Speaking at the workshop, Chief Director: Chemicals Management, Mr Obed Baloyi said environmental laws should be adhered to in order to win the battle against global warming.

"It is extremely important for consumers to comply with environmental laws because it is pointless to have laws that we cannot enforce," said Mr Baloyi.

Environmental rules and regulations are set by the Department on how commercial and private facilities must comply with regards to Ozone Depleting substances.

Control Environment Officer: Compliance Environment Impact & Pollution, Mr Mathanzima Nyambi said, "private facilities must familiarise themselves with

Environmental rules, and also the National Environment Act allows Environmental inspectors to evaluate facilities on whether they comply or not."

Mr Nyambi further emphasised that those that do not obey the rules and continue to harm the environment by using products that contribute to global warming will have to deal with enforcement. The workshop was intended at coming up with solutions on how to phase down powerful greenhouse gases.

Ms Natasha Kochova, a representative from UNIDO gave an overview on the Kigali Amendment on Hydrofluorocarbon phase down and the enabling activities in the Republic of South Africa.

"In the last 30 years, work was put in place to phase out Ozone Depleting Substances under the Montreal Protocol, and the Kigali Amendment has added Hydrofluorocarbons to the list of substances to be phased down," she said.

"Hydrofluorocarbons are organic compounds that contain fluorine and hydrogen atoms, and are the most common type of organofluorine compounds. These Hydrofluorocarbons are frequently used in air conditioning and as refrigerants, they do contribute to Global warming," she explained.

DEFF will be partnering with UNIDO to host the World Ozone Day in Kimberly where they will be teaching school kids and the general public about the importance of protecting the ozone layer.

**Below:** Enthusiastic delegates who attended the workshop, striving for a cleaner environment free of ozone depleting substances



## About the contributor: Keketso Modiba

Keketso Modiba is a Branding, Corporate Image and Exhibitions Intern in the Corporate Communication Directorate. Mr Modiba possess a B-tech in Public Relations Management and he also held a position as a Communication Trainee at Odi District Hospital.

# A concrete intervention to better the lives of women

By Seipati Sentle

Images by Veronica Mahlaba



**Above:** Women in different sectors of the environment were recognised for the role they are playing. The dialogue was themed: "Women Leading 4 Climate Action" held recently in Gauteng.



**Above:** Ms Tshogo Mputle from TshogoM Creations is a crafter, up-cycler and eco-warrior who exhibited recycled copper pipes that she turned into ornaments at the conference.



**Above:** Deputy Minister Maggie Sotyu with Chief Director: Environmental Sector Performance, Ms Patience Tshose and Deputy Director-General: Climate Change, Sustainable Development and Air Quality, Dr. Tsakani Ngomane with other guest speakers.

Addressing the 10<sup>th</sup> Women in Environment Dialogue which was held at Birchwood Hotel and Conference Centre recently, the Deputy Minister of Environment, Forestry and Fisheries, Ms Maggie Sotyu articulated and outlined the post conference critical issues that need speedy intervention such as championing and the noticeable pursuance in implementing the advancement of women in the economic mainstream.

The two-day dialogue was convened under the theme "Women Leading 4 Climate Action". The Dialogue ensured the urgent implementation of International Agreements and

Strategic Instruments on Climate Change. This commitment is reflected in South Africa's National Strategy towards Gender Mainstreaming in the Environment Sector.

"It is through initiatives such as the Women in Environment Dialogue, that nations are built, as women empowerment constitutes individual and community growth and development that leads to a sustainable healthy environment. This will also yield to creating and ensuring access to financial assistance and technological advances for women wanting to enter the environment sector, and also for those who want to expand their already existing role."

She told delegates that Through the National Adaptation Fund, the DEFF supports a number of projects across three provinces, namely KwaZulu-Natal, Limpopo and the Northern Cape, saying that most beneficiaries from these projects are women and youth.

During her presentation at the dialogue, Ms Patience Tshose, Chief Director: Environmental Sector Performance at DEFF, indicated that a number of partnerships which included women should be forged and that the sector initiatives expanded to other sectors should include women beneficiaries in environmental programmes.

Some of the resolutions taken during the Women in Environment Dialogue also included :

- Continue to recognize the contribution of women in the environment sector per environmental programme.
- Renewed urgency to accelerate efforts to make women's concerns an integral part of planning and monitoring and evaluation
- Engage with provincial and local government to focus also on implementing priority programmes for integrated environmental management e.g. participating in Greenest Municipality Programme versus the Clean Up Campaigns for municipalities initiated by DEFF.

Commitments from the Women in Environment Dialogue also included the following:

- To strengthen relations and collaboration with all women in the environment sector.
- Expand NCCC (National Committee on Climate Change) membership
- Continued implementation of joint programmes with NGOs under the IKI (International Climate Initiative such as the Gender Climate Change (GCC)
- Tap into the Women in Environment Network in climate change outreach programmes
- Review communication materials and expand on material developed in indigenous languages and
- Advance gender considerations and women empowerment in climate change platforms convened and anchored by DEFF. "



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- |                |                     |                    |
|----------------|---------------------|--------------------|
| Eggshells      | Disposable nappies  | Meats              |
| Grocery bags   | Plastic             | Cardboard          |
| Aluminium Can  | Vegetable Scraps    | Household cleaners |
| Glass bottle   | Newspaper           | Paper towels       |
| Bread          | Paint thinners      | Pie tins           |
| Shoes          | Pasta               | Cheese             |
| Clothing items | Frozen dinner trays | Paper              |
| Leftover rice  | Batteries           | Deodorant cans     |
| Magazines      |                     |                    |

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ANSWERS: REUSE: Grocery bags, shoes, clothing, newspapers, paper towels, frozen dinner trays, magazines, left-over rice, batteries, newspapers, paper towels, frozen dinner trays, magazines. RECYCLE: Aluminium cans, plastic, glass bottles, household cleaners, nappies, deodorant cans, pie tins, frozen dinner trays, magazines. COMPOST: Vegetable scraps, egg shells, meats, household cleaners, nappies, deodorant cans, pie tins, frozen dinner trays, magazines. LANDFILL: Cheese, paint thinners, household cleaners, nappies, deodorant cans, pie tins, frozen dinner trays, magazines.



# Greenest Municipality Competition

By Russell Baloyi



**M**unicipalities in South Africa design, develop, moderate and oversee planning processes leading to service delivery in our communities. Providing access to municipal services such as water, energy, waste management, landscaping, etc. requires some level of efficiency and waste avoidance to guarantee long-term sustainability. It is against this background that government, through the Department of Environment, Fisheries and Forestry (DEFF) is promoting greening in South Africa through the Annual Greenest Municipality Competition.

The 2019 Greenest Municipality participants included City of Mangaung (Free State), City of Johannesburg (Gauteng), Buffalo City & and Nelson Mandela Bay metro (Eastern Cape) and City of Tshwane (Gauteng) in the Metropolitan Category whilst Lephalale Local Municipality (Limpopo), Dawid Kruiper Local Municipality (Northern Cape), Umhlathuze Local Municipality, Kwa-Zulu Natal), City of Mbombela, (Mpumalanga), Moqhaka Local Municipality (Free State) Umzimvubu Local Municipality are competing in the Local Municipality Category.

The success of GMC 2019 is not only in hosting the upcoming Award Ceremony, but also in how we can showcase greening initiatives in our country, and challenges faced by municipalities to effectively and comprehensively respond to all elements of GMC.

Almost all municipalities visited during the assessment have developed some relevant policies and or strategies for improved service delivery in relation to key elements of GMC assessment such as Waste Management, Water, Energy, Parks and Biodiversity. These Municipalities are on the point of actively tackling environmental problems, with growing attention to savings, increasing focus on the sustainability of the existing service delivery model, and large projects emerging to install solar systems, plant trees, recycle waste and save water. These activities can partly be attributed to an attempt to get a grip on GREENING – what is included and what not, and to move with the times from the Cleanest Town Competition which mainly focused on waste management.

Some municipalities are struggling to provide essential services to households who cannot even afford to pay for such services, and as a result GREENING to them appears to be an additional burden. Local Municipalities in particular - Towns are rapidly becoming urbanized and faced with challenges that are very different from those faced by Metropolitan Municipalities such as constraints of pressing backlogs on housing, electricity connections, water and sanitation. This explains why the Greenest Municipality Competition has two categories for municipalities to compete in.

Limited capacity in terms of human resources; very structured working environment where some departments do not have the opportunity to talk to each other even if they are working on similar issues; decreasing revenue base, limited resource allocation and shortages (such as water) even political issues are amongst the huge challenges local municipalities have to deal with whilst Greening. Huge challenges but also a huge range of opportunities for Greening in Local Municipalities.

Exceeding the eco-systems limits on a long-term basis will pose serious risk and vulnerability to the socio-economic systems, which underpin the quality of life aspiration. This science of Climate Change is being told by others – what is happening to our environment and why? However, through the Greenest Municipality Competition, Municipalities are answering the much bigger question – What Can we do better - with policies, strategies and actions that are already bearing if not starting to bear some fruits. Efforts by all municipalities participating in the Greenest Municipality Competition will go a long way in making it easier for more people to Go Green. All competing municipalities in GMC are winners, not only because they already won in their respective provinces but also because they provide much needed best practices in Greening that can be copied by others.

The participating municipalities must be applauded for the excellent welcome and arrangements in hosting the assessment panel. The same token of appreciation must be extended to all stakeholders and partners or their support in making GMC 2019 possible.



## About the contributor: Russell Baloyi

Mr Russell Baloyi is a Panellist in the Greenest Municipality Competition and is a senior consultant at EnviDev.





# GREENEST MUNICIPALITY COMPETITION

The Greenest Municipality Competition is run by the Department of Environment, Forestry and Fisheries every year through their Green Good Deeds programme with the aim of encouraging municipalities to adapt green economy using the key elements of Reducing, Recycling, Reusing and Recovering waste material. The competition is divided into the categories of local and metro municipalities and it aims to address issues such as waste and water management, energy efficiency and greening.

The objectives of the competition include:

- Job creation in the form of project implementation that addresses environment protection.
- Encouraging public participation in ensuring green and sustainable municipalities
- Creating awareness around the importance of water conservation.

Municipalities are scored according to their:

- Inclusivity
- Preparedness
- Relevancy
- Co-operative governance

Past winners of the competition include a total of 16 local municipalities and 8 metro municipalities.



The 2019 Awards Ceremony for The Greenest municipality Competition will take place between the months of August and September.



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# Fire-fighters receive hero's welcome

By Veronica Mahlaba



**Above:** The Minister of Environment, Forestry and Fisheries, Ms Barbara Creecy, the Director-General, Ms Nosipho Ngcaba and the High Commissioner of Canada in South Africa, HE Sandra McCardell welcomed back the Fire-Fighters from Canada.



**Above:** Some of the WoF fire-fighters that arrived early from Canada. The South African Department of Environment, Fisheries and Forestry has a Memorandum of Understanding with the Canadian Department of Natural Resources.

The Minister of Environment, Forestry and Fisheries, Ms Barbara Creecy and the High Commissioner of Canada in South Africa, HE Sandra McCardell welcomed back the Department's Working on Fire (WoF) Fire-Fighters with much excitement and jubilation to South Africa on 30 July 2019.

The 45-member team was based at the Province of Alberta in Western Canada. They were assisting the country in combatting the huge Chuckegg fire which burnt over 340,000 ha by the time they returned home. The South African group formed part of teams of fire fighters from Alberta, Saskatchewan, British Columbia, New Brunswick, Ontario, Manitoba, Yukon, North West Territories, Mexico and USA in combatting the fire which started on 12 May 2019.

Minister Creecy congratulated and thanked the fire-fighters for honouring the country and their profession. "What is most heartening to hear, is that because of your efforts, the boundary line remained unbreached by the fire. You stood with 1180 firefighters from all over Canada, Mexico and the USA and said: "this far and no further."

This achievement is a great testament to your skills, discipline fitness, knowledge and insight."

The South African Department of Environment, Fisheries and Forestry has a Memorandum of Understanding with the Canadian Department of Natural Resources, in terms of which either country may request urgent support from the other with regards to wildfire management.

The deployment of the WoF fire-fighters in Canada further deepens the relations between Canada and South Africa on integrated fire management capacities.

The High Commissioner of Canada in South Africa, HE Sandra McCardell also thanked the fire-fighters on behalf of Canada and her hometown Alberta for their hard work and coming to their assistance in times of great need.

"This programme is particularly special to me. It hits most important things that both Canada and South Africa are trying to achieve. When I met the team at Working on Fire in 2016, I was impressed by the goals of creating skills and employment for young people. That's something that all countries are working on. The

opportunities to travel across the world. I know that for some of you, it was your first time having a passport, first plane ride and accessing a Visa. Those are special experiences that this programme can provide. There are other things like partnership and working together to address the effects of climate change and you are part of that global intervention," said HE McCardell.

Speaking to one of the fire-fighters, Mr Tonic Mahlare from Rooiberg Base in Limpopo said it was a great privilege for him to be part of the team that went to Canada.

"The day I received a call that I was going, I did not sleep that night. It actually boosted my confidence that my team trusts me that much and I wanted to make sure that I make them proud."

"When we got there, we realised we had to extinguish an underground fire and we used different equipment to fight the fire. It was hard work and the times we worked were different from what we work in South Africa. I am proud of my team, we worked very well together and the also with the teams from the other countries," Mr Mahlare explained.



# YES graduates receive sewing machines

By Veronica Mahlaba



**Above:** Deputy Minister Maggie Sotyu with the Mayor of the Ephraim Mogale Local Municipality, Councillor Molaudi Mothogoane and the staff of Sekhukhune TVET College.



**Above:** All graduates received sewing machines to kickstart their careers. They also received exit certificates at the YES programme graduation.

The Deputy Minister of Environment, Forestry and Fisheries (DEFF), Ms Maggie Sotyu, handed over sewing machines to 124 graduates who participated in Department's Youth Environmental Service (YES) programme on 8 August 2019 in Marble Hall, Limpopo.

The participants completed their Clothing, Textile, Footwear and Leather Manufacturing L2 Training through Sekhukhune TVET College. The sewing machines are meant to kick-start their careers and businesses after graduation.

The YES programme is implemented through the Environmental Programmes (EP) branch of the Department. Its main objective is to address the challenge of unemployment amongst young people by providing them with accredited training and associated practice, which will lead to accredited certification upon completion.

Deputy Minister Sotyu said the achievement places graduates in a position to either create employment for others, become self-employed or go out into the workplace and be gainfully employed in an industry that will always require the skills they have learnt.

"Through this programme, young people are involved in activities that provide environmental service for the benefit of the community, while receiving the opportunity to develop their own skills through accredited training programmes. It is a programme of the Department that prioritises young women, youth with disabilities,

unemployed youth, youth in rural areas, youth at risk, youth heading households, youth in conflict with the law, youth abusing dependency on drugs and alcohol and youth subjected to all forms of abuse," explained Deputy Minister Sotyu.

Ms Julia Sebothoma, a beneficiary of the YES programme said she was glad to be graduating.

"I started this programme as a means to pass time, but I soon realised that the skills and knowledge I was acquiring were important. I have learnt how to make garments. This means I can start my own fashion design business. I saved some of my stipend so I can continue with the business idea after graduation. The stipend helped a lot with transportation and also my parents didn't have to worry about supporting me financially," Ms Sebothoma said.

The Principal of Sekhukhune TVET College, Mr Tebogo Kekana was grateful for the programme that they started with DEFF in 2017 and ended in 2018 as it was a success.

"I think the success rate is very high considering the number we started with and those that finished. We are more interested in the impact of the programme and we are happy to have seen the finished products made by the students. It also meant a lot to us and the students to have the Deputy Minister in our presence because it says a lot about the magnitude of this programme and its impact," stated Mr Kekana.



## About the contributor: Veronica Mahlaba

Veronica Mahlaba is the Senior Communications Officer: Editorial Services at the national Department of Environment, Forestry and Fisheries serving under the Communications Chief Directorate. Ms Mahlaba has experience as a Lecturer in the Media Studies Department at a private college.

# DEFF hosts inaugural Integrated Coastal Management Lekgotla

By Tshego Letshwiti and Ryan Peter  
Images by Proudly SA



The launch of the inaugural Integrated Coastal Management (ICM) Lekgotla in Cape Town focussed on discussing critical coastal management issues and the delivery of priority projects linked to the National Coastal Management Programme.

The ICM Lekgotla was also primarily aimed at facilitating shared experiences in relation to Governance and ICM in the country, with particular emphasis on science-based management, such as how scientific research informs management decisions and the crucial feedback loop between management and research in order to achieve effective coastal management all round.

During the Lekgotla, meaningful engagement on priority coastal management matters facing the country, the needs and enabling factors for effective implementation, strengthening partnerships through effective governance, experience and knowledge sharing and working on improving inter and intra-sectoral integration were key discussion points

The coastal zone in South Africa is managed through the National Environmental Management: Integrated Coastal Management Act (Act No. 24 of 2008) (ICM Act 2008), and sought to proactively manage multiple-use conflicts, pre-empt and plan for new uses, and protect vulnerable ecosystems and marine biodiversity. The ICM Act was enacted in December 2009 and is currently almost 10 years into its implementation. The Act was a landmark legislation for South Africa as well as the African continent, the first of its kind to promote and legislatively prescribe the fundamental shift towards integration in the management of the coastal zone.

Since 1994 a tremendous amount of research, management initiatives and experiences in the implementation of ICM and the ICM Act has been accumulated. As a result management of South Africa's coast through the ICM Act has achieved protection, extension and enhancement of the status of Coastal Public Property (CPP) and secured equitable access to the opportunities and benefits of coastal public property.

An innovative provision in the ICM Act has been that it clarifies what comprises the coastal zone, as well as the purpose and legal status of these zones and articulates the responsibilities of different spheres of government in managing the different components of the coast.

With South Africa's high unemployment rate, a key milestone in the coastal management sector has also been job creation through the Department's Working for the Coast Programme. The Programme has provided short-term contract employment to over 40 000 coastal residents throughout the country over the past 15 years. Contract workers are trained and work on a variety of coastal projects including cleaning the coast, clearing invasive alien plants, rehabilitating degraded coasts and maintaining tourism infrastructure.

ICM is a dynamic and continuous process designed to promote sustainable management of coastal zones and seeks, over the long-term, to balance the sustainability and economic development and human uses of the Coastal Zone. The Lekgotla provided a platform for new and emerging ICM issues for discussion, decision-making, promoted knowledge sharing and experiential learning amongst coastal practitioners, government officials and public leaders.

## About the contributors: Tshego Letshwiti and Ryan Peter

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

Mr Ryan Peter is a Control Environmental Officer: Grade B in the Coastal Conservation Strategies Directorate at the Department of Environment, Forestry and Fisheries, in Cape Town.





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## DID YOU KNOW?

VULTURES THROUGHOUT THE WORLD ARE THE MOST THREATENED SPECIES OF TERRESTRIAL BIRDS. MOST ARE LISTED AS CRITICALLY ENDANGERED AND ENDANGERED. IF NO ACTION IS TAKEN, THEY MIGHT BECOME EXTINCT.

VULTURES ARE A CHARACTERISTIC, DISTINCTIVE AND ECOLOGICALLY IMPORTANT COMPONENT OF THE BIODIVERSITY OF THE ENVIRONMENTS THEY INHABIT.

THE CORE ELEMENT OF BEING A VULTURE IS TO **CLEAN UP** CARCASSES AND OTHER BIOLOGICAL WASTE WHICH IS GOOD! THE TERM 'VULTURE' HAS QUITE A NEGATIVE CONNOTATION SO WE CAN EASILY UNDERESTIMATE THE IMPORTANCE OF THESE BIRDS. BY EATING MEAT OFF ANIMAL CARCASSES, VULTURES **REDUCE THE RISK OF DISEASES SPREADING** IN THE ENVIRONMENT.



## WHAT ARE SOME MAJOR THREATS?

- INTENTIONAL AND UNINTENTIONAL POISONING
- ELECTROCUTION ON PYLONS OR COLLISION WITH POWER LINES
- LOSS OF HABITAT (LOSING NESTING TREES OR ROOSTING SITES AND FOOD)

## CONSERVATION EFFORTS:

THE CONVENTION ON THE **CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS** (OF WHICH SOUTH AFRICA IS PARTY TO), THROUGH THE RAPTORS MOU MULTI-SPECIES ACTION PLAN (MSAP) TO CONSERVE AFRICAN-EURASIAN VULTURES, AIMS TO:

- HALT POPULATION DECLINES
- REVERSE POPULATION TRENDS AND BRING THEM BACK TO A FAVOURABLE LEVEL
- PROVIDE CONSERVATION MANAGEMENT GUIDELINES.

SOUTH AFRICA IS ESTABLISHING A TASK TEAM TO ASSIST GOVERNMENT TO DEVELOP A **NATIONAL VULTURE CONSERVATION STRATEGY** FOCUSED ON SPECIES THAT OCCUR IN SOUTH AFRICA AND TO ADDRESS THREATS THAT EACH OF THESE FACE.



- **INFORM** YOUR FRIENDS, FAMILY AND COMMUNITY.
- **VOLUNTEER** AT A CONSERVATION CENTRE NEAR YOU.
- **DONATE** MONEY TO CONSERVATION EFFORTS.

HOW CAN YOU HELP?





# Rangers play key role in combatting rhino poaching

By Salome Tsoka

Rangers play a critical role in the decline of rhino poaching which nose-dived for the third consecutive year in 2018 with more decreases recorded during the first six months of 2019. This was highlighted by Minister of Environment, Forestry and Fisheries, Barbara Creecy during the commemoration of World Ranger Day at Ranger Memorial just outside of Kruger National Park on 31 July 2019.

"The ongoing decline in rhino poaching is an indication not only of the dedication of the men and women fighting day and night to end rhino poaching, but also a confirmation that the integrated approach continues to achieve results," Minister Creecy.

Illegal poaching and wildlife trade threaten conservation efforts and hamper the sustainable use of biodiversity. Last year, rhino poaching decreased with only 769 incidents being reported. In the first six months of 2019, 318 rhino were poached countrywide, this was a decline of 68 incidents over the same period last year. 122 alleged poachers were arrested within the Kruger National Park while 253 arrests were made for rhino poaching and rhino horn trafficking during the same period.

"The Kruger National Park has been under heavy attack from poachers in the past decade. This has placed a huge burden on the field rangers working here. Lately, that pressure has increased for rangers in KwaZulu-Natal as poachers turn their attentions to our wildlife there."

"As we focus on the war against rhino poaching, we remember that our field rangers are in the midst of a battle for all our plant and animal species," Minister Creecy said.

Minister Creecy together with SANParks CEO Mr Fundisile Mketeni and Chief Ranger Mr Nicholas Funda led the wreath laying ceremony to pay their respects to fallen rangers recognised on the day.

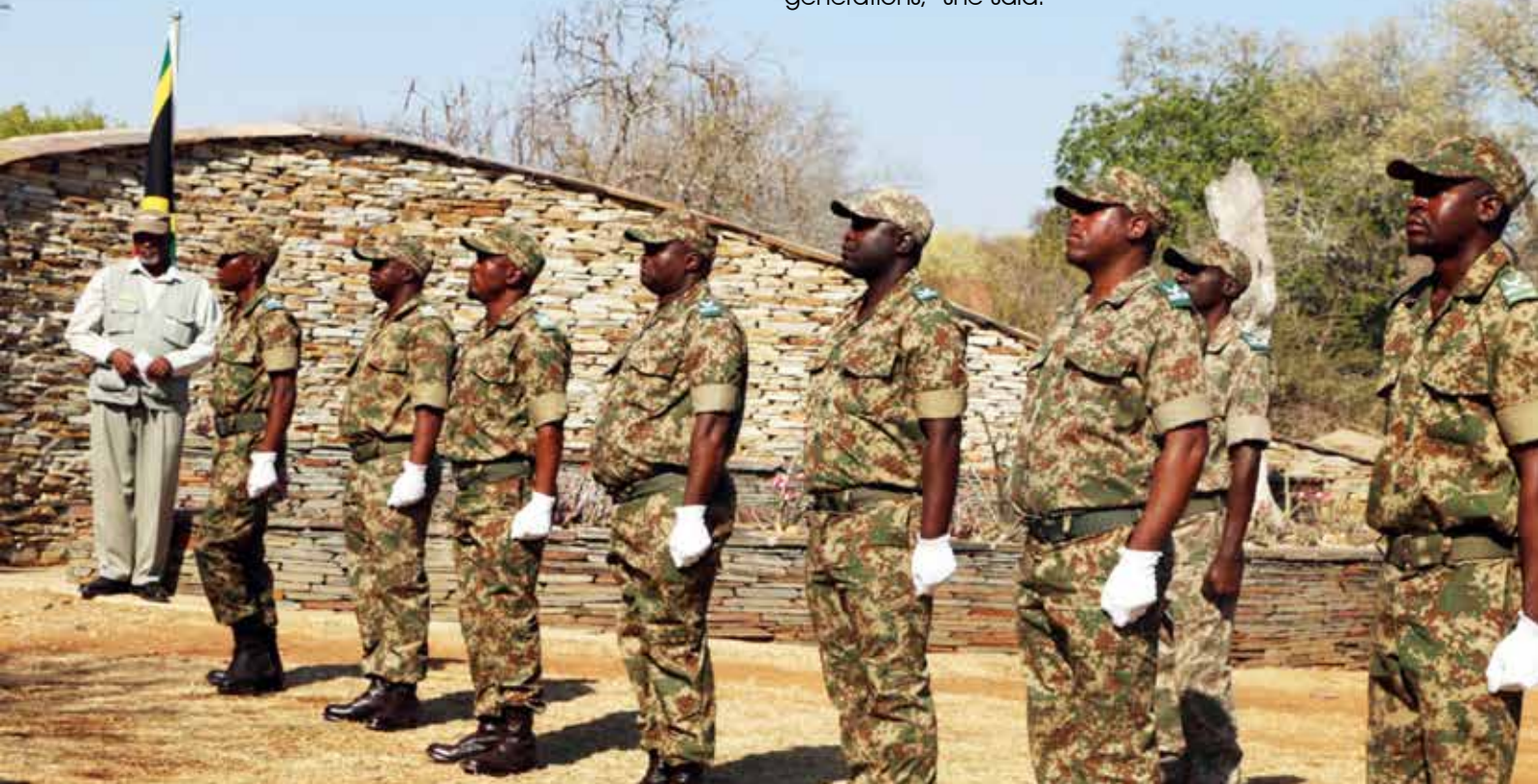
Speaking at the event, Mr Mketeni acknowledged the family of fallen ranger Mr Respect Mathebula and thanked them for his heroic efforts as he lost his life in 2018 in the line of duty, protecting the country's wildlife and biodiversity.

"These rangers who heed the call give us a world of peace, cohesion, connectivity, reflection and a sense of who we are because they look after our heritage. They look after our world because they bring peace in the world.

"We are here to commemorate, celebrate and honour the fallen heroes who have sacrificed their lives. On this day, we thank them for looking after what belongs to the people of this country and the world," Mr Mketeni said.

Field rangers stand between poachers to protect the country's wildlife and biodiversity and often risk their own lives doing that. Ms Nkhensani Mahungela says her love of wildlife motivates her.

"Going to work knowing that you might get killed by a poacher is honestly painful especially when I think about the late field ranger, Mr Respect Mathebula. It is difficult waking up in the morning to go to work when you know you might not come back home. However, I love my job. I love the fact that my job allows me to help conserve the beautiful wildlife that we have for my children and future generations," she said.





# Tips for having green grass and keeping it that way

By Nikki Kingsley

A green lawn is the finishing touch that every home needs for curb-side appeal, but it's not always an easy job. Grass can be finicky based on climate, variety, care. There are certain measures that must be taken so your grass can be the greenest in the neighborhood. Don't just create a green grassy lawn, but use the following tips to keep it that way.

## Sharp Mower Blades

It's essential when keeping your grass clean-cut to ensure that your lawn mower is furnished with a sharp blade. A sharp blade will cut the grass evenly, smoothly, and effortlessly. This will give the entire yard a clean-cut look and makes your grass grow back healthier and more uniformly. A dull blade will only do grass harm making it ragged because it's essentially being ripped apart.

This will lead to other grass issues like dry and yellow grass that needs maintenance. It can also cause grass to lose the essential nutrients that makes it thrive. It's similar to a kitchen knife; the best ones are sharp and make clean cuts. Not only can using a dull

blade damage your grass, it can also damage some of the parts of your mower.

If your blade is dull or old, you may want to consider purchasing a new lawn mower. If that's not an option, you can sharpen your mower blade. This can be done by running your blade with light strokes under an angle grinder. This process involves several different tools and materials so make sure you are prepared for the job at hand. Whenever working with sharp metals and wood, make sure you take the correct safety precautions. In this case, wearing a head protecting shield is necessary in order to avoid getting anything in your eyes.



### **About the contributor: Nikki Kingsley**

Ms Nikki Kingsley is a writer and an editor. She is from Bergen County in New Jersey and she graduated from Montclair State University in 2014 with a Bachelor's degree in Business Administration. She has a passion for environmental preservation and animal rights.





### **Don't Overdo It**

Sometimes when mowing, we're tempted to run over the same areas several times in an effort to achieve a uniform look. We may even adjust the blade height to chop more grass to avoid having to mow frequently. These practices are not beneficial for grass. Mowing your lawn should be a trim.

How much should you cut off? This will depend on your climate. In warmer climates grass should be about 2 - 5 cm tall and in cooler climates it should be on average around 700 cm. Keeping this in mind, limit cutting the grass more than 0,8 cm. The tops of grass are usually much thinner than the thick thatch like grass at the bottom and when it falls off it creates more nutrients for the soil and your grass. For this reason, it's important to avoid raking up trimmings after a mow. The trimmings may not look appealing on your lawn, but eventually they will settle into the bottom level of your grass and help create healthier greener grass. Also keep in mind that mowing the lawn when it's wet is never a good idea. This will create thick clippings that won't add anything healthy.

### **Proper Watering Techniques**

Do not neglect watering your lawn. The grass won't stay green on its own and Mother Nature can only do so much. Most homeowners tend to send a sprinkling of water over their lawn, or rely on light rain showers or bi-weekly rainstorm to do the job. This won't be sufficient in keeping your grass green and healthy.

To correctly water your grass, give it a full and longer watering than a quick spritz. Make sure that the water is penetrating a couple or so inches into the soil beneath that grass. This ensures that your grass will have plenty to soak in. Most grass should receive on average around 5 cm of water a week combined with any rainfall during the week. This means you may have to water your lawn every three days or so.

If you're working with new grass seed, it's important to water your grass lightly but consistently. Twice a day should do the trick, and this should continue for a couple weeks. If you miss watering your seedling grass, you risk cultivating grass that won't be as lush and green as you hoped.

The best time to water grass is in the morning. If you water in the evening time, then your grass never has a chance to dry it. This might sound like a good thing but in reality it becomes a feeding ground for unwanted mold.

### **Weed Work**

To get rid of pesky weeds use weed killers when appropriate but assess your lawn before you spray your entire yard full on. If your lawn contains only a few weeds, pull them out by hand. This makes the job quick and easy and less harsh chemicals are sprayed over your grass. If you happen to have a lawn full of weeds use a weed-killing spray over your lawn. To get the job done right, use a hose sprayer. You can calculate the correct amount and adjust your sprayer to cover the area needed.

To effectively kill off your weeds, do this job in spring and early summer, that way the weeds don't have a chance to grow deep roots. Otherwise, you'll have more work on your hands later on. Also, keep in mind that different types of weeds may need different types of concentrates and chemicals to effectively eliminate problem weeds.

The best way to make sure that weeds don't continue sprouting in your lawn is to keep your lawn full and thick. A thick grassy lawn will leave less room for weeds. If you have a lot of "bald" spots in your lawn, take care of these problem areas immediately because they are breeding grounds for weeds. If an area of your lawn is sparse, that means it's more prone to sunlight. In turn, spacey and well-lit parts of the lawn are exactly where weeds make their home.

### **Lawn-edging**

If you want to section spaces of your lawn for gardens or flowers, or even to highlight or reserve parts of your lawn for different activities, use proper lawn-edging techniques. This may not make your grass green, but it will certainly highlight the contrast between your green grass and your garden area. To create a lawn edge simply dig a trench around the area where you will create a boundary. Using differing materials of your choice from steel, plastic, or a fence, use stakes to secure the material and you have your lawn-edging complete. This will give your lawn a very composed look that will feature the beauty of your green grass and any contrasting areas. It's a great way to create eye-appealing lawn aesthetics that pairs well with a healthy lawn.



# SA Agulhas II records highest visitor numbers on Open Day

By Benedict Mlaba

Images by Siziphiwe Maxengana and Brian Chapole

It was that time of the year again, and this year's SA Agulhas II Open Day had an impressive number of firsts! The beautiful event took place, for the first time, in the City of East London and recorded a first ever 4 000 visitors aboard the ship. On August 2019, families, friends, politicians, school children and people from all walks of life got a once in a lifetime opportunity to enjoy a tour of the ship, from its state of the art science laboratories, to the Miriam Makeba Lounge and the popular bridge area (where ship navigation takes place).

The public also got to enjoy exhibitions by the department and its stakeholders where the DEFF's work in the ocean and coastal environment was explored.

The seven year old ship was designed in a multi-purpose way, making it capable of serving as an icebreaker, research, expedition, supply and cruise ship which can accommodate 100 researchers / passengers and 45 crew members.

Annually the vessel goes to Marion Island, Gough Island and Antarctica (SANAE IV) to provide logistic support and supplies to these three bases.



**Above:** School children about to board the SA Agulhas II.



**Above:** The DEFF's friendly waste mascot, Billy Bin, kept the crowds entertained.



**Above:** School children learn about the ship's navigation and functions in the bridge area.



**Above:** Deputy Director General: Oceans and Coasts Ms Judy Beaumont takes visitors through the Miriam Makeba Lounge.



**Above:** Excited children take a picture with the selfie board.



**Above:** Members of the Public enjoying the views of the ocean atop the vessel.





**Above:** East Londoners came in their numbers to the SA Agulhas II Open Day.



**Above:** Members of the Public in the lab area of the ship.



**Above:** DEFF official Nazeera Hargey explains the department's work in the ocean space.



**Above:** Members of the public got to experience different exhibitors' work including jewellery made from up-cycled material.



**Above:** Exhibitors from the National Pollution Laboratory stationed at Walter Sisulu University, Mthatha Campus.



**Above:** More ship tours.



**Above:** DEFF's Working on Fire Programme at the exhibition area.



# South Africa partakes in International Coastal Cleanup Day

Images by Brian Chapole, Benedict Mlaba, Gaopalelwe Moroane and Siziphiwe Maxengana

2.8 tonnes of litter were removed from Durban beaches this International Coastal Clean-up Day (ICCD). South Africa joined coastal countries across the world to commemorate ICCD on 21 September 2019 in Durban. The Department of Environment, Forestry and Fisheries partnered with stakeholders such as WESSA and Working on Fire and with communities in and around Durban to clean beaches and areas leading to the ocean



**Above:** Communities in and around Durban clean beaches and areas leading to the ocean.



**Above:** Oceans and Coasts' Tabisile Mhlana and Sibusiso Mhambi weigh the litter that was picked up at Isipingo Beach. A total of 1033.34 kg was picked up at Isipingo Beach.



**Above:** Oceans and Coasts' Cole Aden Crowster and Rueben Molale do a weigh in of the litter collected at Treasure Beach. A total of 584.3 kg was collected at this site.



**Above:** Oceans and Coasts' Jabulile Nhleko and Mulalo Tshikotshi during the clean-up at Amazimtoti Beach. A total of 1178.1 kg was collected at this site.



**Above:** Working on Fire fire-fighters made up part of the 600 participants who cleaned up Isipingo beach on Saturday 21 September 2019.



**Above:** Children, together with their parents and teachers were part of the cleanup. The department also focused on educating the younger generation about plastic pollution.



# Minister cleans up taxi rank

Images by Benedict Mlaba and Erica Mathye

Minister Barbara Creecy cleaned up a taxi rank in Port St John's on 16 September. The Minister was joined by members of the public and representatives from Working on Fire and Working on Water. The clean up was part of the Good Green Deeds programme and motivated participants to remain serious about environmental cleanliness.



**Above:** Zimephi Mangqo (25) and Siyavuya Manjezi (23) said cleanliness was part of a thriving community.



**Above:** eneficiaries from the Working on Water and Working on Fire programmes joined the clean-up at a taxi rank near Port St John's on 16 September..



**Above:** Minister Barbara Creecy led the clean-up in Port St John's. DEFF's waste mascot, Billy Bin also joined in and kept the crowds entertained.

# Minister Barbara Creecy hands over a newly built toilet in Lusikisiki

Images by Benedict Mlaba

For many years, a simple visit to the toilet was filled with dread and reluctance for the learners and teachers of Mqakela Senior Secondary School, in Lusikisiki, due to its dilapidated structures. In an effort to ease the schools learning environment, The Minister of Environment, Forestry and Fisheries, Ms Barbara Creecy, officially handed over to the school, a newly built toilet, on 16 September 2019.



**Above:** Minister Creecy addressing the learners Mqakela Senior Secondary School.



**Above:** the old toilet structure that was being utilised by the schools learners and teachers before the new toilet was built.



**Above:** Minister Creecy cut the ribbon to officially open the brand new toilet built for the Mqakela Senior Secondary School, in Lusikisiki.



**Above:** the brand new toilet built for the Mqakela Senior Secondary School, in Lusikisiki.



## uKhahlamba Drakensberg Park

The uKhahlamba Drakensberg Park is the eighth, a mixed natural and cultural World Heritage Site.

- Year inscribed: 2000
- Core zone: 242 813 hectares
- Location: KwaZulu-Natal
- Type: Mixed cultural and natural heritage
- UNESCO reference: 985

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