

Environment Quarterly

EzemVelo Ngenyanga Ntathu • Mbango wa kotara • Mupo nga Kotara



**Algoa Bay aquaculture
authorisation granted**
**African cultures pay homage
to wetlands everyday**



environment, forestry
& fisheries

Department:
Environment, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



2020 environment CALENDAR



JANUARY

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02 February World Wetlands Day
 03 March World Wildlife Day
 21 March International Day of Forests

23 March World Meteorological Day
 22 April Earth Day

MAY

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12 May World Migratory Bird Day
 22 May International Day for Biological Diversity
 05 June World Environmental Day
 08 June World Oceans Day

17 June
 18 July
 31 July
 31 August to 4 September

World Day to Combat Desertification and Drought
 Nelson Mandela Day
 World Ranger Day
 Arbor Week

SEPTEMBER

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DECEMBER

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16 September International Day for the Preservation of the Ozone Layer
 19 September International Coastal Clean-up Day
 22 September World Rhino Day
 07 - 11 September South African National Parks Week
 21 November World Fisheries Day

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To use this QR code conveniently you must have a smartphone equipped with a camera and a QR code reader/scanner application feature.





Dear Valued Stakeholder

Welcome to this Wetlands Day edition of the Environment Quarterly.

I am immensely grateful for the astounding work done by our erudite editorial team – under the tutelage of Erica Mathye - and our loyal contributors who always work tirelessly to ensure that we produce a bumper and balanced edition every quarter.

In your hands (in these days of digital media, I should also add “on your screen”) is an edition our team worked on in a period that was plagued by uncertainty globally as the marauding corona pandemic reminded us of the basics of hygiene. I write this editorial with South Africa in the grip of a national lockdown to curb and control the infection rates in our country.

Government, under President Ramaphosa, has been at the forefront of leading society into understanding this pandemic and the need to remain safe. Society elects government to govern and take decisions on their behalf, and this government has risen to the occasion.

Overnight, as individuals and society, we have awoken to the basic fact that public hygiene should form part of our daily routine. As we battle the pandemic, let’s also connect the dots and add that a clean environment is central to public hygiene.

Once again our behaviour as humanity during this period will define how we arrest this situation.

So human behaviour is the one element that continues to define the state of not only our public hygiene, but also the environment entirety. I suppose the two are interlinked, you could add.

We celebrated World Wetlands Day, which we cover in this edition, with the aim of reminding society of the state of our wetlands, while also raising awareness of wetlands’ significance. South Africa’s 3rd National Biodiversity Assessment – a comprehensive scientific reflection of the state of Biodiversity in our country-was not glowing in its presentation of the state of our country’s natural environment. So it’s fair to assume that all of us have a role to play in the conservation and protection of our wetlands.

Public education and awareness is central to environmental management. Hence the department used the celebration of the Wetlands Day to raise awareness in schools by hosting a competition that will strengthen the curriculum and promote environmental rights to schools in Limpopo.

Jubilations and ululations filled the packed OR Tambo Hall in Mthatha where Minister Barbara Creecy handed over 15-year small-scale fishing rights to cooperatives in the OR Tambo Region. Our policy for the Small-Scale Fisheries Sector recognises that various communities in our country had previously been marginalised and discriminated against in line with the apartheid dispensation.

So it stands to reason that if you want to forge social cohesion in our country, it’s important that we bring all our communities into the mainstream economy.

One of the department’s Extended Public Works Programmes is Working on Fire, which continues to ensure that fires do not destroy forests and vegetation, and, by extension, do not threaten livelihoods, particularly in rural areas. We travelled with Deputy Minister Soty to Nelspruit where she led the passing out parade of Working on Fire forestry recruits. It will be the work of these men and women to rehabilitate forests and plantations in the area that have been poorly managed.

Our forestry programme, which is supported by these recruits recognises the potential of forests as the source of about 40 percent of global renewable energy in the form of woodfuel – as much as solar, hydroelectric and wind power combined.

As we march into the new financial year, we also welcome to our communications team, Portia Chipane, who joins our team to manage our Corporate Communications functions whose products includes Environment Quarterly.

Enjoy

Albi Modise

Head of Communications & Advocacy

Meet our team

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Albi Modise

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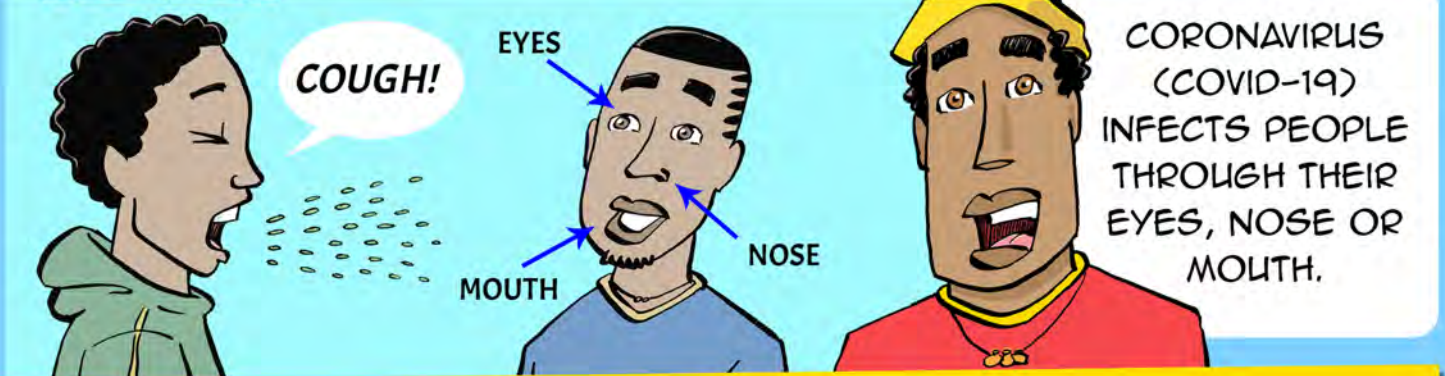
Tshegofatso Nahlovu

HAY'KHONA CORONA!

YOUR ACTIONS CAN SAVE LIVES!



CORONA VIRUS (COVID-19) IS HERE.
THIS IS A NEW AND DANGEROUS VIRUS WHICH SPREADS EASILY AND HAS ALREADY KILLED MANY PEOPLE AROUND THE WORLD.



CORONAVIRUS (COVID-19) INFECTS PEOPLE THROUGH THEIR EYES, NOSE OR MOUTH.

HOW CAN YOU KEEP SAFE AND SLOW DOWN THE SPREAD?

Wash your hands regularly with soap and water for at least 20 seconds.



Avoid touching your eyes, nose, and mouth with unwashed hands.



Cover your cough or sneeze with a flexed elbow or a tissue, then throw the tissue in the bin.



Avoid close contact with people. Stay at home, and keep (social) distance from others.



REMEMBER, IF YOU TAKE CARE OF YOURSELF, YOU TAKE CARE OF OTHERS!



LOOK OUT FOR MORE HAY'KHONA CORONA MESSAGES.

African cultures pay homage to wetlands everyday

By Salome Tsoka



Above: Working for Wetlands general workers and Limpopo Provincial Coordinator examine growth of the Lake Fundudzi Wetland since rehabilitation of the project began.

As the world celebrates World Wetlands Day annually on 02 February, African cultures and people like the Tshiaba tribe situated in the Vhembe District Municipality in Venda pay homage to these sacred and natural treasures on a regular basis. Located in the heart of the Soutpansberg Mountains, along the R523 between Thohoyandou and Louis Trichardt, Lake Fundudzi has played a significant role in the lives of the many villagers surrounding it.

Spanning a distance of an estimated 140 hectares, the lake is believed to be over 10,000 years old. It has been identified as one of South Africa's eight largest and unique freshwater lakes which are critically endangered and under protection.

Villagers in the area, particularly the Tshiaba tribe believe it is a sacred place given to them by their ancestors. Working for Wetlands General Worker, Mr Alpheus Sizi who is also a part of the Tshiaba tribe said performing rituals at the lake or using its resources is an age old practice

which has been passed down from many generations.

"The lake and wetlands are very important to us as they provide us with the water and materials we need to perform our rituals. When we perform our rituals, we are often led by our local Chief's sister and we use wood found near the lake, home brewed beer and snuff to perform our rituals. We also know that if we take care of these sacred spaces by protecting them, they in turn will protect us from ever experiencing droughts or flooding," Mr Sizi said.

"I believe that if we are able to conserve these spaces and nurture them, they will continue to look after us and even give us employment opportunities in nature conservation and even in these working for wetlands projects," added Mr Sizi.

Many of the Working for Wetlands workers working on the Lake Fundudzi Wetlands are local villagers including the Tshiaba and many others from different tribes who have not only taken an akin interest in the Department of Environment,

Forestry and Fisheries Working for Wetlands project which has been rehabilitating the Lake Fundudzi Wetlands since 2003 but are also passionate about the conservation of their environment.

Lake Funduzi general worker, Ms Agnes Senthumule has been working on the project since its inception and said that working on the project has helped many people including herself by giving her an opportunity to not only improve her standard of living but to also put her three children through school and varsity.

"The Working for Wetlands projects implemented by the Department has helped the rest of the community with entrepreneur opportunities as well as empowered a lot of women in the area. Young men and women working on wetlands are able to use the experience gained through these projects to apply for work in other companies or to even establish their own businesses," she said.

This year, the Department and the world celebrated World Wetlands



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 Communication Officer in the Chief Directorate: Communications.

Day under the theme Wetlands and Biodiversity to highlight the vital role wetlands have on biodiversity. From 24 to 28 February 2020, the Department together with the Limpopo Department of Economic Development, Environment and Tourism (LEDET), Limpopo Department of Agriculture and Rural Development, South African National Biodiversity Institute (SANBI), the Vhembe and Waterberg District Municipalities and a number of other organisations came together to raise awareness through community outreaches and school awareness'.

The community outreaches and school awareness saw the Department visit communities and schools in the four local municipalities, namely Makhado, Musina, Thulamela and Mutale under the Vhembe District Municipality. The school awareness culminated in a school competition whereby the top performing schools walked away with Makro vouchers to purchase material that would enhance the schools' environment.

Speaking at the celebratory event in Vhembe District Municipality, Acting

Deputy Director-General Biodiversity and Conservation Mr Khorommbi Matibe urged community members living near the lake to avoid taking part in the illegal practices happening around Lake Fundudzi including deforestation, overgrazing, mining, urban development and the planting of alien invasive plants.

"We need to stand together in addressing these challenges that impact on all of us in one way or the other in particular the youth and women. Working together we can do more," he said.

Learners celebrate Wetlands Day through school competition

By Madimetja Mogotlane

In celebrating the World Wetlands Day, the Department of Environment, Forestry and Fisheries (DEFF) in collaboration with different stakeholders, municipalities and Limpopo Provincial Government, embarked on a school awareness competition to strengthen the school curriculum and promote environmental rights to schools in Modimolle, Limpopo Province on 28 February 2020.

The World Wetlands Day school awareness and competition, celebrated under the theme: Wetlands and Biodiversity saw different schools from five local municipalities under the Waterberg District Municipality competing for the prize.

Schools were identified by DEFF and local municipalities' officials who went to the different schools to listen to their presentations and ultimately select the top five best performing schools identified in Waterberg District local municipalities

Giving the overview of the awareness, Ms Machuene Tshepape from the Directorate: United Nations Convention Combat Dissertation and Wetlands said the Waterberg District Municipality consists of 5 water catchment areas of the main rivers flowing through the Waterberg district.

"These includes the lower Crocodile river, the Mokolo, the Lephalala river catchment. Despite their importance in providing habitats to vulnerable and



Above: Spa Park Primary School learners display their wetlands mock-up structure during the Wetlands Day school competition.

threatened species, these areas are highly degraded due to overgrazing and bush encroachment and there is a need to raise awareness on the importance of wetlands, biodiversity habitats and strategic water source areas," Ms Tshepape said.

At the end of their presentations, the schools were rewarded with a dummy cheque representing the Makro vouchers which will be given to the schools, and were encouraged to purchase only material or equipment that enhances the environmental status of the schools.



About the contributor: Madimetja Mogotlane

Madimetja Mogotlane is a Senior Communications Officer, Internal Communications and Events in the Chief Directorate: Communications at the Department of Environmental Affairs. Mr Mogotlane is a former intern in Media Liaison at the Department and has journalistic experience.

Algoa Bay sea-based aquaculture authorisation

Photos by Tanja Dekker



Above: Southern Atlantic Sea Farms harvesting mussels



Above: Oysters are regularly brought back to land to be sorted, graded and thinned out to specific densities

Environmental authorisation for the proposed sea-based aquaculture development zone in Algoa Bay in the Eastern Cape has been granted by the Department of Environment, Forestry and Fisheries.

Authorisation was granted on 26 February 2020 following a number of specialist studies and an Environmental Impact Assessment (EIA) to determine the likely effects the proposed development would have on the environment. The EIA took into account inter-related socio-economic, cultural and human-health impacts. The process had also included determining appropriate mitigation, management and control measures for potential impacts identified.

Granting environmental authorisation for this development unlocks the aquaculture potential of the Eastern Cape.

The authorisation covers the expansion of the existing oyster farming in the Port Elizabeth harbour, and allows for the opening of two new sites in the Bay.

At full production, the zone can create about 2 800 employment opportunities, and see an investment of R150 million in finfish farming and a R440 million investment in the bivalve culture (oyster and mussels). It will also promote transformation, growth and GDP contribution in line with the aspirations of Operation

“Granting environmental authorisation for this development unlocks the aquaculture potential of the Eastern Cape.”



Phakisa: Oceans Economy.

Linked to this development is the expected creation of additional small businesses, and regional economic diversification.

The Algoa ADZ comprises three precincts:

A site about 2km offshore at Summerstrand, also known as Algoa1 option 1. This site is offshore from the beaches of the southern suburbs of Port Elizabeth (King's Beach, Humewood Beach, Hobie Beach, and Pollock Beach) and has been authorised for bivalve culture. Longline culture, which involves floating buoys below the water, will also be permitted.

The Algoa 6 site is located adjacent to the Port Elizabeth harbour and involves the expansion of the oyster and mussel farming operation which has been there over the last 20 years.

Algoa 7 in the Port of Ngqura is located around 3km offshore, adjacent to the port and is approved for the farming of indigenous finfish only.

The granting of the environmental authorisation comes after a lengthy process started in 2009, which has seen potential sites withdrawn from the list because of the effects they would have not only on the environment, but also on shipping, bunkering, size and ocean conditions.

The granting, which had been suspended on appeal in 2014, followed extensive stakeholder engagements and assessments by environmental practitioners, including the effect such an operation would have on reefs and water quality.

All sites are required to introduce management measures to alleviate any risks identified. This includes the establishment of an Aquaculture Management Committee (AMC) comprising of relevant government departments to oversee the management, monitoring and compliance of the environmental authorisation.

To ensure transparency and accountability, a consultative forum will be established to create a platform for all interested and affected parties to engage with government departments and provide input into environmental monitoring results.



Above: Authorisation was granted on 26 February 2020 following a number of specialist studies and an Environmental Impact Assessment.



Deputy Minister hands over 250 school desks

By Tshego Letshwiti



Above: Deputy Minister of Environment, Forestry and Fisheries, Ms Makhoto Sothyu, the Deputy Minister of Human Settlement, Water and Sanitation, Ms Pam Tshwete and Advocate Hishaam Mohamed, MP.



Above: School learners at Perivale Primary School.

A total of 250 desks made from Invasive trees were handed over to Ukhanyo and Perivale Primary Schools in Cape Town.

The donation was made by the Deputy Minister of Environment, Forestry and Fisheries, Ms Makhoto Sothyu, the Deputy Minister of Human Settlement, Water and Sanitation, Ms Pam Tshwete and Advocate Hishaam Mohamed, Member of Parliament.

The initiative formed part of the Back to School Campaign aimed at ensuring that advocacy programmes on environmental issues which address climate change, pollution and biodiversity conservation, reach the learners.

Eco desks are made as part of the Department's Working for Water (WfW) programme. Wood from alien invasive plants is used to manufacture high-quality products at lower costs, creating jobs for approximately 1 500 workers nationally. The programme also produces chess board tables, office furniture and coffins. Alien invasive plants cause enormous damage to the environment threatening water security, reducing the productive use of land, and affecting the ecological functioning of natural systems.

"By clearing these invasive plants that threaten our water security, we get wood that we use to manufacture desks. The environment benefits from less invasive plants/trees while creating much needed jobs for our people. The eco desk programme shows the value of our environment in addressing social needs and as young people, you should join us in protecting our environment," said Deputy Minister Sothyu.

Alien invasive species threaten ecosystems and biodiversity in a number of ways, firstly they have a negative impact on water - when alien plants invade catchment areas, they reduce the volume of water reaching rivers and dams, and may even stop streams from flowing. They also block sunlight to aquatic organisms, and may cause livestock losses through drowning. The plants also grow fast and therefore use up large amounts of soil nutrients subsequently reducing the nutrients available for indigenous plants. Soft woods, like Pine, act as fuel for fires and tend to grow in dense thickets, these catch fire easily making it hotter than normal because there is more matter available to burn, which intensifies the damage caused by fires.

The Deputy Minister ended her visit by encouraging the learners to take responsibility for their environment and their schools, and also donated 24 (12 bins per school) colour-coded bins to encourage waste separation, garden tools, school shoes, sanitary pads, seeds for the gardens and trees for planting at the respective schools.



Above: Some of the equipment that was donated by Deputy Minister Sothyu.



About the contributor: Tshego Letshwiti

Ms Tshego Letshwiti is an Assistant Director within the Internal and External Communications Sub-Directorate at the Department of Environmental Affairs, in Cape Town. She joined the Department in February 2014 after working in print and broadcast Media. She holds a BA Honours Degree in Journalism from the University of Johannesburg.



JUNE IS ENVIRONMENT MONTH



World Environment Day - 5 June

World Environment Day raises awareness about the environment and specific environmental issues. It is the biggest, most globally celebrated day for positive environmental action. People from all walks of life come together to ensure a cleaner, greener and brighter outlook for themselves and future generations.

World Oceans Day - 8 June

World Oceans Day is a time to highlight the many ways in which oceans contribute to society. They regulate the global climate, supply essential ecosystem services and provide sustainable livelihoods and safe recreation. As people around the world celebrate the water that links the entire planet together, help to raise awareness for the sea's role as a source of food, oxygen and medicine.

World Day to Combat Desertification - 17 June

The World Day to Combat Desertification and Drought (WDCD) promotes public awareness of international efforts and cooperation to combat desertification and the effects of drought. This is a unique occasion to remind everybody that desertification can be effectively tackled and that solutions are possible!

CALL CENTRE: 086 111 2468 www.environment.gov.za



**environment, forestry
& fisheries**
Department:
Environment, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA





Life thrives in wetlands

Wetland biodiversity matters



Convention on
Biological Diversity
#WetlandBiodiversityMatters



World Wetlands Day
is made possible by the
Danone Fund for Water.

World
Wetlands Day
2 February 2020
Wetlands and biodiversity



Join us - visit WorldWetlandsDay.org



GOALS FOR 2020

By Salome Tsoka, Veronica Mahlaba and Zibuse Ndlovu

It's the year 20Plenty and time to play your part in saving the environment. Remember, every life on earth counts and every effort driven into making their stay comfortable matters. Whether you are into saving the plants or animals, no effort is small enough towards saving our precious planet. We celebrated World Wildlife Day on 3 March under the theme "Sustaining All Life on Earth" Governments all over the world are putting every effort into education and awareness on key environmental issues such as climate change, plastic pollution, air pollution, rhino poaching, etc. A little goes a long way which means that the smallest effort can make a big difference. Below we have listed some simple ways in which you too can get involved in saving the planet in 2020.

1 Play your part and be the voice of the rhino

South Africa is the home of the rhino. You can help keep it that way by educating the local communities regarding the value of the rhino and its ecosystem as well as about the fact that rhino horn has no real medical uses.

Our planet is home to 5 species of rhino:

- Black Rhino (Critically endangered)
- White Rhino (Endangered)
- Javan Rhino (Critically endangered)
- Indian Rhino (Vulnerable)
- Sumatran Rhino (Critically endangered)



Anti-Poaching Hotline: 0800 205 005

2 Do Good Green Deeds

Become a waste picker:

Start waste picking to make money. Waste pickers collect recyclable materials to resell to buyback centres.

Pack a waste free lunch:

Bring a mug with you whenever you go for take-away beverages so you can avoid using paper cups. Most paper cups are made in a way that makes it more difficult for them to degrade, and in some ways more hazardous to the planet than the plastic cup. So why not just bring your own mug for your favourite beverage?



3 Turn lights off

Turning off the lights when you leave your room can help save energy. It can also help reduce carbon emission and other harmful greenhouse gases. Hence, turning off your lights is a simple way to help protect the environment and save the planet.

4

Don't use plastic

Plastic bags harm animals and the environment and take years to break down. Use your own canvas bag instead of plastic bags.

**5**

Save Water

South Africa is a water scarce region, as such, saving water is very important for the environment. Try to reduce your water use when you brush your teeth, shower, wash your hands or cook. This will also save money on your monthly water bill. Also repair any dripping taps or leaking pipes before they drain your pockets too.

**6**

War on water leaks

Every year, South Africa loses about R7 billion due to water leaks and such losses cost the country. This is water that could be used by millions of households who do not have access to basic services such as water and sanitation. Saving water is extremely important. Always turn off your tap when you're finished and fix all your plumbing leaks.

**7**

Clean heat

Switch to cleaner fuels, such as gas, for cooking and heating, or use solar energy, e.g. solar water heaters.

The burning of paraffin produces pollutants such as nitrogen dioxide, particles, carbon monoxide, formaldehyde and sulphur dioxide.



8

Tree planting

Trees are essential for our survival. They provide food and oxygen. They also provide additional necessities such as shelter, medicine etc. According to the Joburg City Parks, plant and site identification is important to identify the type of plant or tree species you want to plant and the suitable area or climatic conditions in which they grow. Take time to prepare the proper environment before new plants are planted.

**9**

Compost

If you have green fingers, then composting is one of the best ways to keep your plants healthy. Composting food and garden waste reduces the amount of refuse in landfill sites and results in organic food for your plants that costs you nothing.

**10**

Recycle

Recycle the rubbish that cannot be reused. Collect all your rubbish, sort it into different categories of paper, glass, metal and plastic. Put it in the correct recycle bins or take it to a buy-back centre. From there it can be used to make new products, e.g. aluminum from used cold drink cans can be recycled to make other aluminum products.

**11**

Reduce

Cut down on the amount of litter we produce. For example, buy products in bulk that are made from recycled material and use canvas bags instead of plastic packets for shopping. An important part of waste reduction is conservation. Using natural resources wisely, and use less than usual in order avoid waste.

12

Reuse

Find ways to reuse items that you would normally throw away. For example, old tyres can be used to grow flowers and we can reuse plastic or glass bottles instead of new ones which use up more raw materials.





13 Recover

Turn waste into wealth. Become a wastepreneur. You can convert waste into resources such as electricity, heat, compost, fuel etc. through thermal and biological means. You can also recover waste to create ornaments and jewellery that you can sell to people.

14 Lift clubs

Have you ever thought about starting a lift club? Carpooling is a responsible way of playing your part in saving the environment from harmful greenhouse gases. This also means there will be few drivers on the road, easing traffic. It is a great way of socializing and getting to know your colleagues.



15 Appliances

Your old and new appliances might be costing you more than you think. Check the energy usage and running costs before you buy any new appliances for your home or office. Cheaper appliances might save you money now but might use more energy than a costlier option.



16 Walking

Swap your wheels for your feet to run errands at your local stores or when visiting friends. Not only is it a healthier option but it allows you to decrease your carbon footprint as you get some fresh air by using your own energy.



17 Vehicle maintenance

If walking isn't an option, ensure that your vehicle is as green as possible. Have your vehicle checked and serviced regularly for oil leaks, tyre pressure and excessive exhaust emissions. A modern vehicle operating in peak condition is a lot greener than a leaky, fuel guzzling and smoke emitting one.



18 Invasive species

Invasive species may look beautiful in your garden but their beauty doesn't outweigh the damage they cause. These species pose a critical threat to biodiversity, water security, the economy and productive land use. Know your invasive species and report any sightings to the appropriate authorities and have them removed.



19 Start a group

Start or join an environmentally conscious group that combats environmental issues in your community. You can team up with those around you and make a real difference for your community by raising awareness and even holding regular clean up campaigns in your area.



20 Raise awareness

Living in the digital age makes it possible for one to raise awareness using your mobile networks. You can spread positive environmental message to your followers and friends on social networks about green living and tips and even reach a wider global audience.



China to reduce single use plastic by end of 2020

China has announced that it would be drastically reducing plastic pollution by phasing out of single-use plastics by the end of the year. Plans put forward by the National Development and Reform Commission and the Ministry of Ecology and Environment, indicate that the production and sale of single use plastic bags will be banned in major cities by the end of 2020 with smaller towns following suit by 2022. The changes are made in an effort to protect public health and to beautify the country.

World Environment Day theme inspires global poster competition

The environmental category of the 16th edition of the International Poster Biennial, hosted by Mexico for over thirty years, will this year be devoted to biodiversity. This year's World Environment Day theme places a special focus on biodiversity. And in an effort to use art to raise environmental awareness and action, the 16th edition of the International Poster Biennial is inviting artists to submit posters under six categories, one of which is devoted to environmental issues. Artists from around the world are invited to submit their posters until 15 May 2020.

Kenyan women plant indigenous trees to combat invasive species

A group of women from a village in East Kenya have come together to save the deteriorating forest in their area. Using their own time, money and efforts, the group began a tree nursery that focuses on planting indigenous trees. Invasive species such as the lantana camara have destroyed the original flora in the area, increased the risk of wildfires, and also started affecting smallholder farms, livestock pasture and roadsides. Working together with the Kenya Forest Service organisation, the women dig up the lantana by their roots to suppress their regrowth and prepare the area for rehabilitation by introducing indigenous trees.

Young innovator creating energy and fighting waste in Yemen

The 2017 UN Environment Programme (UNEP) Young Champion, Muradee Thummarukudy has been making strides with his idea to create small-scale biogas plants that run on household waste to provide fuel which effectively tackles the energy and waste crisis in his country. Since winning the award, three biogas prototypes will be tested while between five and ten additional systems will be created in the next year to be distributed and shared in rural areas. Mr Thummarukudy and his team are conducting assessments on how many people are in need of energy. After the testing phase, more funds can be raised to increase scale and reach more people.

Dutch Ocean Cleaning Device passes the test

A Dutch invention may be on the verge of tackling the plastic pollution in our oceans. Designed by the Netherlands-based non-profit organisation, the Ocean Cleanup this latest prototype was able to collect plastic waste such as large cartons, crates, abandoned fishing gear and even microplastics. According to the organisation, the self-contained system in the Great Pacific Garbage Patch uses the ocean's natural forces to passively catch and concentrate plastic. However, the organisation will continue to improve the system so that it is able to endure and retain the collected plastic for long periods of time.

The Ocean

Let's learn about the ocean and why it's so important!



The Earth has one big connected ocean, yet there are many ocean basins, such as the Atlantic, Pacific, Indian, Arctic and Southern.



The ocean covers about 70% of the planet's surface making ours a water world.



Most of the Earth's water (97%) is in the ocean.



All water on Earth is connected! Water evaporates from the earth's surface, falls as precipitation (rain, snow, sleet, etc.) onto the land and ocean, and returns to the ocean as river runoff and groundwater (underground) flow. This exchange of water is known as the hydrologic cycle.



Although the ocean is large, it is finite and resources are limited.



The ocean affects every human life! It supplies freshwater (most rain comes from the ocean) and nearly all Earth's oxygen.



The ocean influences our planet's weather and climate and affects human health.



The first life is thought to have started in the ocean. The earliest evidence of life is found in the ocean.



Ocean life ranges in size from the smallest virus to the largest animal that has lived on Earth, the blue whale.



Estuaries are coastal areas where freshwater and saltwater intermingle. Estuaries provide important and productive nursery areas for many marine and aquatic species.



From the ocean we get foods, medicines, as well as mineral and energy resources. The ocean provides jobs, serves as a highway for transportation of goods and people, and plays an important role in national security.



South Africa's Marine Big 5



Conversations about Africa's Big Five centre on the 5 most iconic species of the continent: lion, leopard, rhino, elephant and buffalo. But did you know that the vast ocean surrounding the southern tip of Africa is home to its own flagship species?

The Marine Big Five are the whale, shark, seal, penguin and dolphin. South Africa offers exceptional opportunities to view these animals all across the Western Cape Province from the Garden Route to Cape Town itself. These are the most popular sea animals of Southern Africa and ticking all five off your list is a must-do for any holiday to this beautiful country.

The Marine Big 5

-  The African Penguin
-  The Cape Fur Seal
-  Dolphins
-  Southern Right Whales
-  The Great White Shark



Family of African penguins



Cape fur seals



Surfing with dolphins, Morgan Bay on the Wild Coast of the Eastern Cape



Southern right whale



The Great White Shark



House plants that detoxify the air

By Veronica Mahlaba

Your home is where your heart is. In order to keep your heart healthy, you need fresh air. Households are filled with toxins that produced from our daily living and utilisation and consumption of many products. Toxins we find in our homes include the following:

- Xylene- cleaning products
- Alcohols
- Ammonia
- Acetone
- Formaldehyde - plastic bags, paper towels, floor cleaners, adhesives and gas stoves.
- Benzene - detergents, dyes, paints and rubbers.
- Trichloroethylene – used to make degreasing solvents

There is air pollution all around us, but you sure can improve the quality of the air in your own home. Did you know that there are plants that can help you detoxify the air in your home? We have put together a list of indoor plants that you can use as home detox plants. These plants are proven to filter toxins from the air in your home. Home detox plants include:

Areca Palms



They release loads of oxygen during the day and help restore moisture to dry winter air at levels comparable to an electric humidifier. One of the best plants for removing airborne toxins.

Spathiphyllum



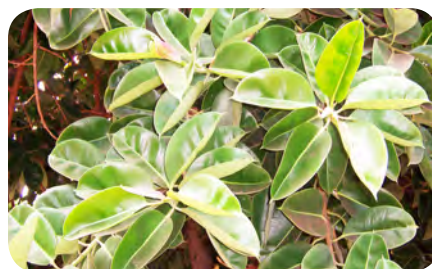
Also known as the Peace Lily. It is a tropical plant with white flowers which absorbs pollutants such as formaldehyde (found in carpeting) trichloroethylene (found in plastics), benzene (found in paints), xylene (found in adhesives), toluene and ammonia. The peace lily also removes acetone, used to make plastic and fibers. Acetone is also found in tobacco smoke and car exhaust, which could be present in your home environment. However, if you have pets, keep this plant out of reach as it is toxic if consumed.

Sansevieria trifasciata



It is popularly known as the Mother-in-Law's Tongue or snake plant. This plant is an evening oxygen producer, making it an excellent plant choice for the bedroom. It absorbs airborne toxins and acts as a natural humidifier. The Mother-in-Law's Tongue is perfect for those who are not into planting as it can withstand any environmental conditions from light to dark, and wet to dry. Mother-in-law's tongues are easy to care for and make trouble-free detoxifiers. They filter out benzene, formaldehyde, trichloroethylene, xylene and toluene.

Ficus elastica



This plant is also called the Rubber Plant. It has thick, deep green leaves of rubber to help filter out formaldehyde, benzene and ammonia from the air. Additionally, it improves the aesthetic of your living space. Warning: it should be kept far away from animals or children, as it is poisonous when consumed.

Epipremnum aureum

Also called Golden Pothos, Devil's Ivy or Money Plant. It grows very fast and can absorb formaldehyde, benzene and xylene. It thrives in

gloomy spaces with little natural light and tolerates infrequent watering. Placing this plant in or near the garage is a good choice since the engine exhaust is a primary source of formaldehyde.



In the Chinese culture, Money plants are often given as gifts on the Chinese New Year. It is believed to bring the owner good luck, good fortune and good health. Unfortunately this tree is toxic to cats and dogs when ingested, and should also be kept out of reach of children.

Gerberas



They cheer up the room, and are effective toxin absorption. Gerberas release oxygen at night and purify air by removing benzene and trichloroethylene. They are helpful in bedrooms to refresh night-time air.

Get any of these plants and you will sleep better at any time of the day, knowing that your home is free from toxins.

Source – www.gardenshop.co.za and www.bestofthesouthbay.com

WORLD WETLANDS DAY

Every year on **02 February** the world celebrates World Wetlands Day, which was signed in 1975. The theme for this year is **"Wetlands and Biodiversity"**. Wetlands are home to many species, these wetlands and the species they support, in turn...



The Plants

There are many plants with medicinal properties that occur in wetlands. An example is the common buttercup (E), Kankerblaar (A), hlapi (SS) or ishashakazane (Z), which occurs throughout South Africa typically used for treating Coughs, Vomiting, Sore throat, Cancer, Scabies and Mumps.



The birds

The White Winged Fluffail, Wattled Cranes (all of which are amongst the greatest birds) are important for local and international trade.

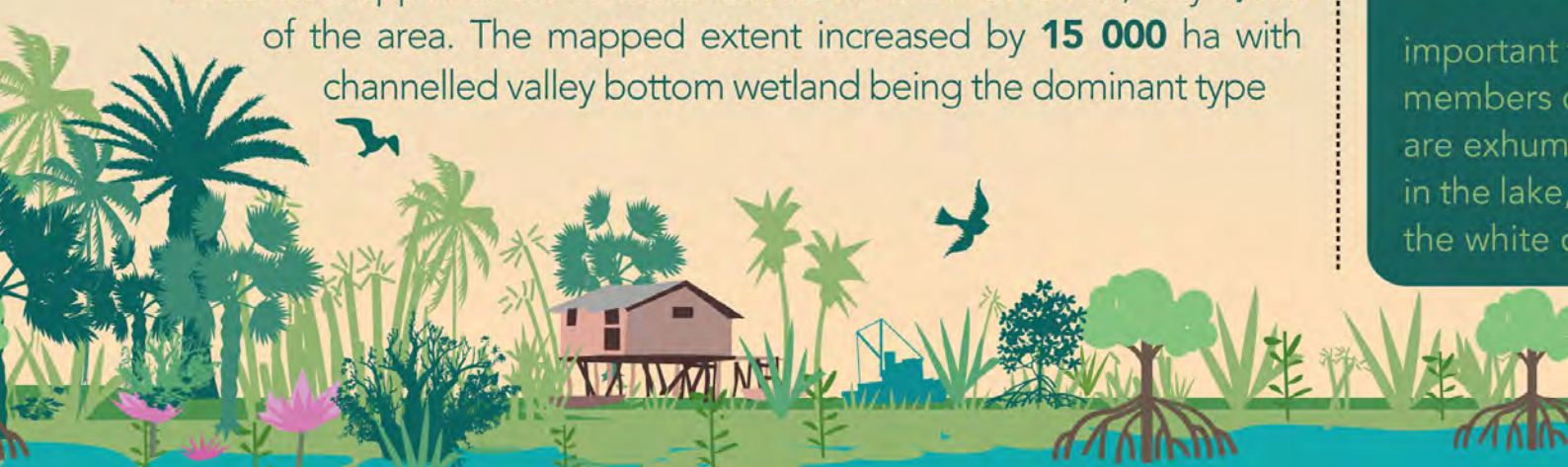
Loss of wetlands = Loss of biodiversity

Wetlands are the most threatened and least protected ecosystems in South Africa. Wetland ecosystems face many pressures and are highly threatened. Approximately **88%** of wetland area is threatened. Less than **2%** of their extent is in the Well Protected category.

Wetlands mapped in the Vhembe district cover **27 039.4** ha; only **1,1%** of the area. The mapped extent increased by **15 000** ha with channelled valley bottom wetland being the dominant type



important members of the wetland are exhumed in the lake, the white...



environment, forestry & fisheries
Department:
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REPUBLIC OF SOUTH AFRICA

Website: www.environment.gov.za
Call centre: 086 111 2468



WETLANDS DAY 2020



This marks the day that the **Ramsar Convention** on Wetlands was signed. South Africa became the 5th signatory when it signed the treaty in 1997. Wetlands are important ecosystems that provide habitat for a large number of species and provide a number of benefits to society and the economy.



Birds

(Blue, Grey Crowned and other species) are endangered species) and are important attractions for both local and international tourists.



Aquatic plants

Aquatic and wetland plants are known to protect or improve water quality by trapping sediments and retaining excess nutrients and heavy metals within the wetland. Plants that are important in this regard are for example bulrushes (*Typha capensis*) and reeds (*Phragmites australis*).



Lake Fundudzi as sacred site

There are many places in South Africa that are important cultural or spiritual sites, and Freshwater sources such as rivers, streams, lkes and springs are often preferred sites for practices such as baptism. Lake Fundudzi is found in the northern part of South Africa in the Limpopo Province along the Mutale River and is South Africa's largest inland lake. Several beliefs are upheld about Lake Fundudzi, including that it is inhabited by the god of fertility in the form of python. It is also an important final resting place for the Vha-Venda ancestors and is treated like a holy shrine. Deceased members of the tribe are first buried in a grave by the kraal, but after a number of years their bones are exhumed and then cremated and thrown into the lake. A white crocodile is also believed to live in the lake and guards the ancestors. When Venda kings die their remains are placed in the lake and the white crocodile will cough up a stone, which the new king has to swallow.



Learn more: WorldWetlandsDay.org #WetlandBiodiversityMatters

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SANBI

Biodiversity for Life

South African National Biodiversity Institute



**World
Wetlands Day**

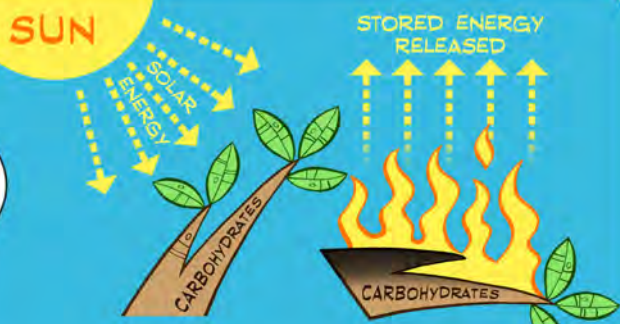
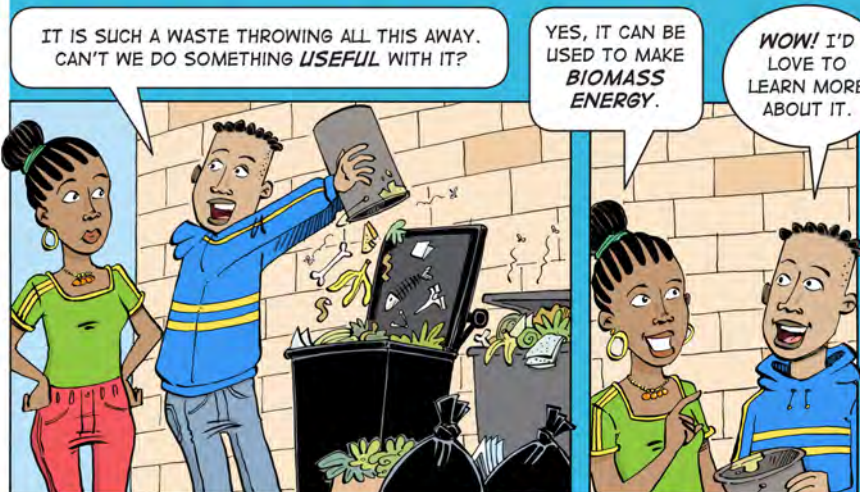
2 February

Wetlands and biodiversity



Producing energy from plant matter

What is biomass energy?



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.



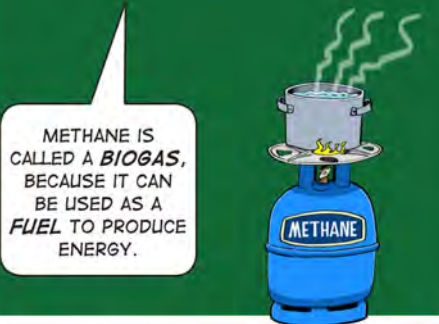
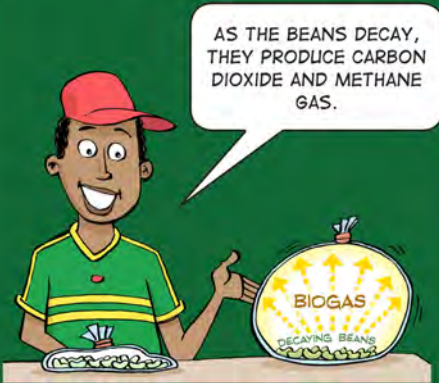
3 PUT ONE BAG IN A SUNNY PLACE, ONE IN A WARM SHADY PLACE AND ONE IN A COOL DARK PLACE.

4 LEAVE YOUR BAGS FOR A WEEK ...

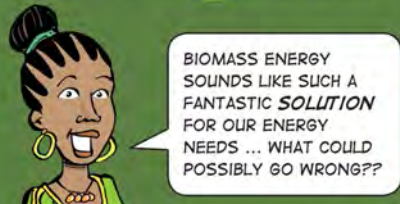
MON	TUES	WED	THURS	FRI	SAT	SUN
X	X	X	X	X	X	X
X						

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

WHAT'S HAPPENING HERE?



How "green" is biomass energy?



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.



Living better naturally

By Marcini Govender
Images by Medical News Today



Since ancient times, medicinal plants have been the backbone of healing worldwide and currently the health industry is once again captivated by nature based remedies and products. In Africa alone, 80% of the population still uses traditional medicine as primary health care and this should say something to the usefulness of nature based products. Natural products are chemical compounds or substances produced by living organisms that are found occurring naturally in nature and this is why they are seen as natural, safe and a healthier option to laboratory made medications.

Natural products include herbs and plants which can be processed and taken in different ways and forms. These include the whole herb, teas, syrup, essential oils, ointments, salves, rubs, capsules, and tablets that contain a ground or powdered form of a raw herb or its dried extract.

The use of natural products speaks to everyone's need to feel healthy and looking beautiful. It's generally simple, non-invasive means of trying to keep one's body at optimum level. It is therefore important to adopt a healthy and active lifestyle—by eating nutritious food, doing daily exercise and using natural health products. Maintaining your health with the use of herbal and natural remedies is the first step to support your well-being, so next time when a tummy bug bugs or headaches and nausea tries to stop you, try a nature based treatment as it might just nurse you back to health without breaking the bank.

So next time check the pantry – and try a few of these:

- **Apple Cider Vinegar** mixed with warm water and honey is used as a natural weight loss aid, whilst when mixed with **cayenne pepper**, honey and **ginger** makes a syrup that can cure sore throats and can stop a cough.
- **Garlic** is one of the well-known immune boosters and is one way of fighting off infections.
- **Turmeric** or the golden powder has several medicinal uses which include to improve circulation and digestion. It is both an anti-inflammatory and antioxidant and together with some warm milk makes for a soothing and beneficial bed time drink.
- Our home grown **rooibos**, is a natural aid to weight loss, helps with lessening allergies and is an antispasmodic which also aids with digestion.
- Calming and beautifying **aloe extracts** are used in many simple beauty treatments, as face masks and soothing sunburn cream.
- **Cinnamon** is an antioxidant rich herb which can reduce inflammation, stimulate immunity and promote neurological health.
- **Bananas** are our natural mood up-lifter, as they contain serotonin which alleviates depression. It is also a natural energy booster and disease fighter.
- **Papaya** makes for an excellent aid for tummy ailments, as it regulates digestions, calms acid reflux and relieves stomach cramps.
- **Cucumbers** are excellent source of water and can regulate blood pressure, rehydrate the body and promote healthy skin.
- **Vinegar** mixed with honey and cinnamon is an easy way to lighten your hair at home without using peroxide.

This list is by no means extensive, there is a large number of natural products that has wonderful amazing health benefits, and sometimes it doesn't hurt to give it a try. Do some research and you will be amazed at how some simple products from your kitchen pantry can help you feel better. Then you might agree, there is more to the phrase 'an apple a day' and it definitely includes more than apples.



About the contributor: Marcini Govender

Ms Marcini Govender is in the Directorate Environmental Sector Advocacy and Coordination in the Department of Environment, Forestry and Fisheries. She is a registered Principle Natural Scientist in the field of Botany and is currently pursuing interests in Science Communication which allows scientist to inform, educate, share wonderment and raise awareness of science related topics.

Europe-South Africa biomass trade opportunities

By David Gardner



A high-level trade delegation arrived in South Africa from the Netherlands with a core focus to assess opportunities for biomass trade between South Africa and the Netherlands. Climate change is necessitating a re-focus on how the world meets its demand for many goods and services, and biomass is no exception to this. While the developed North becomes highly targeted on reforestation and reversing climate-affecting processes, the effects of climate change and how this must be mitigated require very different solutions in Southern Africa.

Developed nations face increasing focus and enforcement on mitigating and reversing the effects of climate change. In relation to their energy mix, there is a shift from fossil fuels such as oil and coal to sustainable sources of energy generation. While wind and solar power become increasingly important parts of countries' energy mix, there is still a high demand for alternative fuel sources to replace coal and oil. Biomass is an important part of this resource shift.

Biomass markets and deforestation

Using wood chips and wood pellets ensures a circular carbon economy, and biomass can create energy much more efficiently and with significantly less emissions than burning fossil fuels. Yet, climate mitigation targets place ever tighter controls on deforestation, and also

limits on sustainable forestry across the developing world, and limits the availability of replacement fuels. Many developed nations have looked to the developing world for new sources of biomass. Yet, while biomass markets have grown rapidly between developing and developed nations, much of this has not been sustainable. Many developed nations contribute significantly to deforestation by exploiting indigenous forests or utilizing other unsustainable sources of biomass. The need for sustainable sources of biomass is imperative.

It is a widely acknowledged fact that climate change will affect less affluent nations more than developed nations. In addition, numerous studies point to the potentially devastating effects of severe climate events in Southern Africa, most notably extreme droughts, floods and fires. With Cape Town's 'day zero' narrowly averted, Gauteng's looming water crisis and many smaller towns in South Africa regularly running out of water, the effects of drought are already affecting many South Africans.

Climate change and rural communities

Extreme fires such as those witnessed in Cape St Francis and the Garden Route have claimed many lives, destroyed hundreds of properties and plantations worth billions of Rands. But the least reported, yet potentially most devastating to human livelihoods are the impacts



About the contributor: David Gardner

Mr David Gardner is a consultant on value chain identification and creation for the Clear to Grow programme. His areas of focus are urban policy, housing and infrastructure, rural economic development and developing value chains that support the growth of sustainable green industries. He consults in research and data analysis leading to evidence-based policy and strategy development and implementation. David has a degree in Town and Regional Planning from the University of the Witwatersrand and a Diploma in Business from Henley Business School



of climate change in rural areas. The lack of primary water supplies manifest in rivers, springs and wells drying up, rangeland is being overgrazed and becoming eroded and increasing infestation of viable land by invasive and alien plants reduces usable land and makes landscapes more vulnerable to the impacts of flooding. And indications are that as the levels of carbon in the atmosphere rise, so their propagation will speed up. All of these impacts are significantly worsened by Invasive and Alien Plants (IAPs). Not only do IAPs consume around 6% of South Africa's freshwater reserves, they take over increasingly large proportions of South Africa's already limited arable land, increase fire risk and speed up the degradation of landscapes.

The threat of Alien invasive plants

Whereas most developed nations seek new sources of sustainable fuel, Southern Africa is in the unique position of needing to achieve the opposite: climate mitigation actions to secure water resources, recover economically valuable rangelands and manage fire risk require the removal of IAPs and recovery of natural landscapes or economic utilization of reclaimed areas for agriculture or tourism. The Department of Environment, Forestry and Fishing (DEFF) recognized the need to tackle the IAP problem back in 1995 and has run its very successful Working for Water and Working on Fire programmes over the last 24 years. Much progress has been made: over 3 million Ha of IAPs have been cleared, in the process recovering land for more economically beneficial purposes, creating thousands of small businesses and tens of thousands of rural employment opportunities annually. DEFF has also pioneered the establishment of value-added industries using this biomass, including the production of school desks, coffins and biomass-based building materials. Yet, IAP infestation is an ever-escalating problem, and more resources are needed to win the war.

Finding value out of alien invasives

So, how do we find a win-win solution from these two dilemmas? DEFF has partnered with Avocado Vision to establish the Clear to Grow programme through

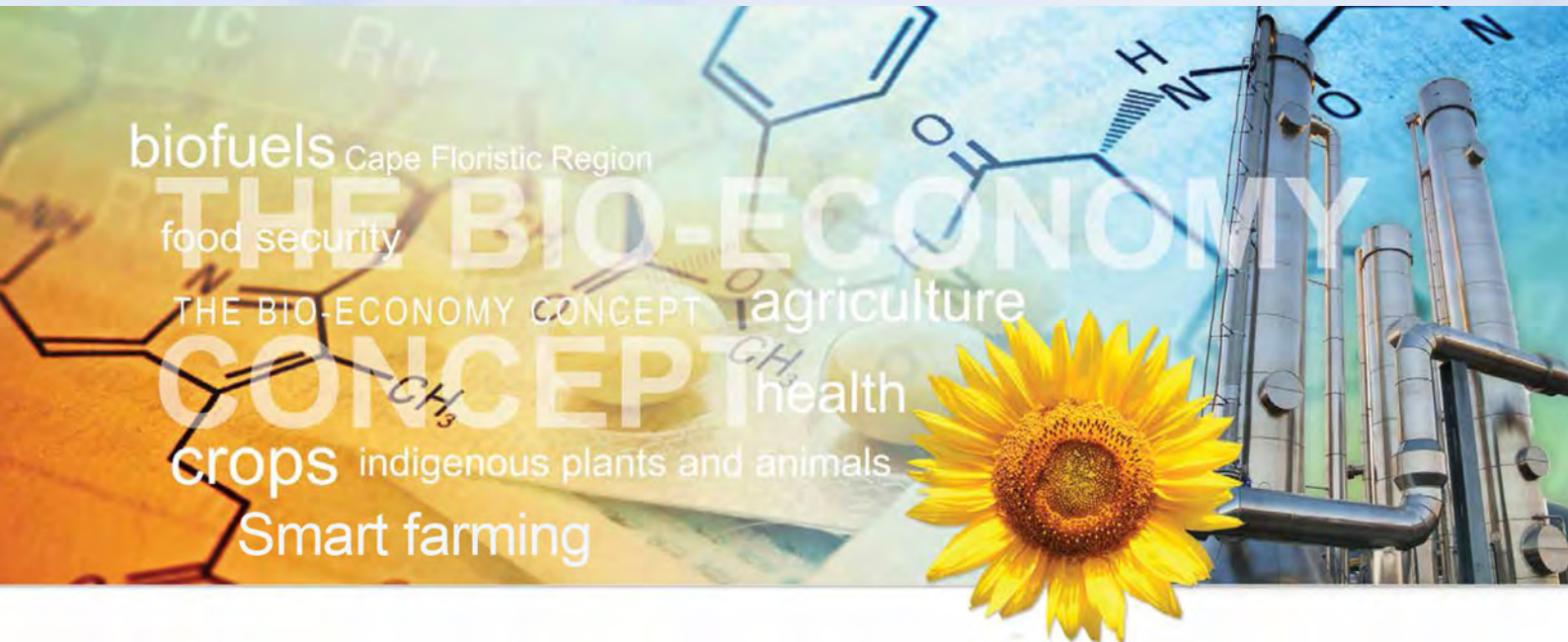
which SMMEs working on IAP eradication are upskilled to enable them to work more efficiently, and to seek other income-generating opportunities to apply their critical clearing and rehabilitation skills. The first opportunity is to recognize that the basic skills DEFF has fostered through the Working for Water programme in thousands of SMMEs and tens of thousands of people are a critical resource in winning the IAP war. But also, that these skills are able to be shaped to create viable SMMEs independent of the government-funded programmes that incubated them. The second opportunity is to shift the mindset regarding the IAP biomass itself from being a waste product to becoming an exploitable economic resource. Most of the IAP clearing activities to date have been mainly focused on clearing only, leaving the biomass where it falls or even killing it while it still stands, often creating a further fire risk. While not all IAP biomass is economically exploitable because of its species, size and where it grows, the third opportunity is to link the IAP removal into a virtuous cycle through which 'waste' IAP biomass is used to meet international demand for sustainable sources of biomass.

Growing trade between SA and Netherlands

It was exactly this concept that was explored during the Netherlands trade delegation. The objective of the Netherlands government is to grow trade between Netherlands and Southern Africa. Numerous companies from the Netherlands were a part of the delegation who offer potential technical and service solutions that could facilitate the exploitation, value added processes and links between European markets and Southern African biomass resources. Many South African interests were engaged during the delegation's trip to Johannesburg, Port Elizabeth and Cape Town including representatives from DEFF, the Working for Water programme, the Clear to Grow programme and other parties responsible for re-activating two large investments in mothballed pelletisation plants in South Africa. While it is early in the process, what became clear during the week-long delegation is that there exists a major opportunity for South Africa's IAP resources to be aggregated into a supply chain that can feed a Coega-based major export operation for sustainably procured IAP biomass.

Researchers to uncover intricacies of life in the rhizosphere

By Dane McDonald



A team of researchers are set to uncover the intricacies of life in the 'rhizosphere' after receiving funding from the Foundational Biodiversity Information Programme (FBIP) to conduct a large-scale project that aims to characterise the rhizosphere microbiomes associated with two of South Africa's major crops, wheat and maize, under conventional and conservation agriculture. In an article written for *Nature*, David H. McNear describes soil as 'one of the last great scientific frontiers and the rhizosphere as the most active portion of that frontier in which biogeochemical processes influence a host of landscape and global scale processes.'

The 'rhizosphere' can be described as the area around a plant root that is inhabited by a unique population of microorganisms influenced by chemicals released from plant roots.

Project leader Professor Karin Jacobs from Stellenbosch University's Microbial Ecology and Mycology lab said that it is increasingly being recognized that soil microbiomes play crucial roles in nutrient cycling, soil formation, plant growth and ultimately in the production of food.

Smart farming

South Africa's Bio-economy Strategy was launched in 2014 to serve as a road map on how to develop the country's natural biological resources into commercial products in the health and agriculture industry.

Jacobs said understanding the soil microbiome has clear and very practical applications in food production. She believes that understanding and harnessing the functional power of microbial communities will enable farmers to reduce input costs, while maintaining or even increasing yields over time.

According to Jacobs the data generated from the project will inform the identification of microbial profiles that are conducive to plant health, and farmers will be able to evaluate and adapt their farming practices to steer their soils towards harbouring more diverse and resilient microbial populations.

The results from the project will allow agriculturalists to understand how the natural microbiome can be harnessed to reduce and even replace chemical inputs for optimal yield and disease management. Microbiomes have also shown to increase the heat



About the contributor: Dane McDonald

Mr Dane McDonald is a former biodiversity scientist (MSc) and former journalist (BPhil Journalism). He is now a combination of the two and is still seeking a useful label.

“The project, which runs from 2019 to 2021, will involve experts and students from several South African academic institutions including Stellenbosch University.”



and drought tolerance in crops, mitigating the effects of climate change.

‘This study has a direct impact on the bio-economy as it informs management in terms of inputs and practices, and optimising yields - working towards sustainable agriculture will alleviate the effect of global environmental change,’ Jacobs said.

Knowledge deficit

Agriculture significantly contributes to the South African economy and has been recognized as a sector which could potentially drive economic growth. However, less than 12% of the country’s land mass is suitable for use as arable land.

Alarming, said Jacobs, substantial proportions of soils are subject to increased desertification, reducing the proportion of productive lands. Given South Africa’s growing population, increasing the productivity of arable lands is crucial for sustenance.

Over the last few years, there has been a significant demand on the farming sector to alter agricultural practices while simultaneously improving yield. According to Jacobs the developments in analytical approaches such as high throughput sequencing and culture methods has helped reduce the knowledge deficit around microbial diversity and their specific roles. ‘The power of this approach has been evident in the study of the human microbiome, which revolutionized our perception, diagnosis and treatment of diseases,’ she said.

Open access data

The project is novel in its approach, and in addition to providing key foundational biodiversity data, successful completion of the project is likely to result in a number of publications in reputable international peer-reviewed journals, assisting in the development of a tool for measuring soil health.

In accordance with FBIP funding conditions the microbial diversity data generated through the project will be openly accessible through public initiatives like the National Centre for Biotechnology Information (NCBI).

The project, which runs from 2019 to 2021, will involve experts and students from several South African academic institutions including Stellenbosch University, Elsenburg College, University of Pretoria, Free State University, Rhodes University, North-West University, ARC-Plant Health and Protection Unit, and the University of the Western Cape. It will also facilitate the training of several MSc, PhD and Post Docs with young (emerging) researchers playing a major role in their supervision. This aligns with one of the strategic objectives of the FBIP which is to attract, develop and up skill people to ensure appropriate capacity for biodiversity knowledge generation, dissemination and application.

The FBIP is funded by the Department of Science and Innovation (DSI) and is jointly managed by the South African National Biodiversity Institute (SANBI) and the National Research Foundation (NRF). SANBI is a public entity of the Department of Environmental Affairs. FBIP funding for large, integrated team projects ranges between R500 000 and R2.1million per annum for a three year period.



Deputy Minister officiates passing out parade for Wof

By Veronica Mahlaba

The day was filled with excitement as the Deputy Minister of Environment, Forestry and Fisheries, Makhotsu Sotyru officiated the passing out parade of 124 Working on Fire (WoF) forestry recruits. The ceremony took place on 27 February 2020 at the Kishugu Training Academy, Nelspruit, in Mpumalanga.

The forestry recruits will help rehabilitate forestry and plantations that have been poorly managed in the area. The support teams includes 32 females and 92 males who will be deployed in various forestry villages in the Western Cape and the Eastern Cape to ensure compliance to the National Veld and Forest Fire Act and several other laws including the National Forest Act. They will also be implementing Integrated Fire Management (IFM) such as constructing fire breaks, fuel load reduction and assist with fighting fires.

Deputy Minister Sotyru state that this is an important initiative designed to address the critical needs in the forest areas which fall under the Department of Environment, Forestry and Fisheries. She further mentioned that without interventions like the Forestry Support Programme, the Department and government face a very real threat of unwanted wild land fires that destroy property and spreading destruction to neighbouring land, including communities who live in these areas.

"The training you have received here at the academy has prepared you to perform much-valued services in your community, be it fire-fighting or more general forest management.

"We all know the stark reality of unemployment, particularly youth unemployment, in our society today. I appeal to all of you to embrace this opportunity and employ your newly acquired skills when you get back to your bases. As with all skills you learn, you can only claim to have the skill once you have employed it and become better for applying your knowledge and training," said the Deputy Minister.

These recruits, fire fighters, are community members living on plantations. They were recruited from areas including Kluitjieskraal, Grabouw in the Western Cape and Lebanon and Libode in the Eastern Cape. This initiative came into existence because of high risks posed by large forestry areas in the Western Cape and Southern Cape that have not yet been officially handed over to Cape Nature and South African National Parks (SANParks).

Speaking to one of the recruits, Ms Aphezile Skuniyana from the Western Cape said the training wasn't easy but as time went their mental and physical discipline improved. "This training has taught me to be disciplined and learned to be focused. On top of that as a single parent, this training has given me a chance to provide for my child and family," said Ms Skuniyana

On its full cycle, this initiative will provide 320 new job opportunities at the identified Department of Environment, Forestry and Fisheries plantations with fully equipped firefighting teams.

YES graduates off to a good start

By Tshegofatso Ndhlovu



The Deputy Minister of Environment, Forestry and Fisheries, Ms Makhotso Soty, handed over certificates to graduates of the 2019 Gauteng Province Youth Environmental Services (YES) programme during a graduation ceremony held on 12 December 2019 at The University of South Africa, in Pretoria.

The YES programme is one of the focus areas of the Environmental Protection and Infrastructure Programme (EPIP) that entails the involvement of unemployed young people in activities and interventions that provide environmental services that benefit communities. The youth is provided with opportunities for personal development, accredited training and exit opportunities.

Delivering her keynote address, Deputy Minister Soty said it gives her joy to stand in front of an audience filled with graduates who have benefitted from a programme that was implemented by the Department.

"South Africa is currently facing its highest level of unemployment especially amongst the youth. I am therefore very proud of the fact that our department offers programmes such as this one, programmes that are not only aimed at equipping a young black child with skills but programmes that are aimed at developing the black child to ensure that he or she can find employment and better their futures," she said.

The Deputy Minister went on to say that the department was proud to have a group of young people who are conscious about the environment.

"We are living in a time now where taking care of the environment should be a priority for all of us. Climate change is real and it affects all of us. This is why I become so happy when I come across young people who are not only aware of environmental problems but are taking the necessary steps to ensure that their communities are taking care of the environment," she explained.



Above: Mr Kate Lebepe receiving his certificate from Deputy Minister Soty.

Ms Viola Tshwane said the programme gave everyone a sense of hope.

"There was a point in my life where I had lost all hope as an unemployed young person coming from an underprivileged community but this programme was able to change that. Being a part of this programme allowed me to get excited about my future, I am eager to see what the future holds for me as a graduate of the YES programme. I want to thank not only the department but every single person who was a part of this programme and helped us to get to where we are today," said Ms Tshwane.

The Chief Executive Officer of DELTA, Mr Malusi Vatsha says he is happy about the success the programme has been able to achieve.

"Our Journey with this programme dates back to 2013 and from the moment that we started, we knew exactly what it was that we wanted to achieve, we wanted a programme that would change the lives of unemployed young people in South Africa. It gives me great joy to know that this programme continues to produce many successful young people who go on to build successful careers for themselves," said Mr Vatsha.



About the contributor: Tshegofatso Ndhlovu

Mr Tshegofatso Blessing Ndhlovu holds a diploma in Journalism from the Tshwane University of Technology and is currently studying towards an advanced diploma. He was an experiential service trainee within the Chief Directorate: Communication. He is an avid tennis fan and looks up to the Williams sisters.

Young people encouraged to lead the way on Climate Change

By Zibuse Ndlovu



Above: Youth Community Outreach Programme (YCOP) participants were part of the youth that came for the climate change dialogue.

Above: Director: Climate Change Mitigation, Ms Mapula Tshangela; Director: State of the Environment Information, Ms Anna Mampye, and Director: Strategic Co-ordination, Ms Dineo Ngobeni.

The highly interactive youth dialogue led by the Environment, Forestry, and Fisheries Minister, Ms Barbara Creecy at the Aviator Hotel, in Kempton Park on 28 February 2020 was a gathering of young razor-sharp minds, and determined future leaders who came in numbers to deliberate on issues concerning climate change.

Speaking during the session, Minister Creecy told young people to never lose courage in educating the older generation about climate change. "No one country can tackle climate change alone, but it has to be dealt with by everyone. In other countries, it is the youth who have changed the public perception on this issue, so

it is your job to educate your parents about climate change. You have a big job to do," said Minister Creecy.

Among other issues, learners raised a shared concern about those living in poverty, stating that they have a higher chance of experiencing the ill-effects of climate change due to increased exposure and vulnerability.

In response, Minister Creecy assured the youth that South Africa was committed in working with other countries to find a solution. "We are not a denialist country, we accept science. The injustice in climate change politics is that those who have contributed the least to global



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.



Above: Minister Creecy listening attentively to Ms Raeesah Noor-Mahomed (in the middle), and Ms Munnira Katongole (on the left) from Parktown High School for Girls. They have been boycotting school every Friday for the past five weeks as part of their climate change protest.



Above: Jacob Daniel Gordon from King David Victory Park High School. Jacob is one of the learners who have been boycotting school every Friday as part of his climate change protest.

emissions are most impacted upon by the outcomes. Climate change impacts more on women and children, because most women in Africa work in agriculture, they fetch water, and as the continent gets hotter and dryer, women and children are going to be impacted upon. But this is not the reason not to do anything," said Minister Creecy.

Ms Raeesah Noor-Mahomed, one of the learners who have been boycotting school every Friday as part of climate change protest, proposed that a youth delegation be taken to climate change conferences. "We as a youth we would like to be involved in the policy making, we want to work with the government... because it is our future," said Ms Noor Mahomed.

Minister Creecy hosted the dialogue to report back on the outcomes of the international climate change talks held in Madrid, Spain in 2019. In December 2019, Parties to the United Nations Framework Convention on Climate Change (UNFCCC) met in Madrid, Spain, for Conference of the Parties (COP 25) to finalise outstanding issues of the Paris Agreement Work Programme.

Ms Ndivile Mokoena from Women for Climate Change

Justice Southern Africa commended South Africa for the establishment of the presidential commission on climate change. "This is long overdue, I am happy that this is taking place, and I feel that the key issues that they need to address there is finance, and budgeting for climate change, and consideration of gender issues," said Ms Mokoena.

Jacob Daniel Gordon from King David Victory Park High School pleaded with the young people to play their part in protecting the environment and saving the future. "I am here because I am boycotting school, my goal is to see government declaring climate change as an emergency, once they do that funds will be directed towards it, and once that happens more people are going to be more aware of it and its effects," said Jacob. The 25th Conference of Parties to the UNFCCC did not reach consensus on most substantive issues, particularly with regard to markets, adaptation as well financing matters. These issues will be considered in 2020 by the subsidiary bodies during the June session in Bonn, Germany as well as COP 26 to be held in the United Kingdom.

What is climate change?

CLIMATE change is the alteration of the earth's general weather conditions. Climate change is different to weather changes in that weather can change continuously from day to day and even from hour to hour.

Apart from increasing average temperature, climate change also includes changes in rainfall patterns and changes in extreme weather events that lead to things like floods and droughts.

Climate change is real and is already with us. In South Africa, surface air temperature has warmed significantly over much of the country since the 1950s.

What is causing the climate to change?

Increases in the atmospheric concentrations of gases known as greenhouse gases are largely

to blame for a steady increase in average global temperatures and this, in turn, is the change of our climate.

Greenhouse gases are emitted when fossil fuels like coal, oil, petrol, diesel and natural gas are burnt. Human activities such as chopping down of forests are also reducing the earth's natural ability to absorb greenhouse gases.

Climate vs weather

Climate is different from changes in the weather. Weather can change from day to day and hour to hour, while climate is the average pattern of weather over a long time. Climate change is an alteration of the earth's general weather conditions. The most prominent part of climate change is the rising temperature at the earth's surface. Apart

from increasing average temperature, climate change also includes changes in rainfall patterns and an increase in extreme weather events that lead to phenomena such as floods and droughts.

Greenhouse effect

When the sun shines on Earth, some of its solar radiation (in the form of light energy) is reflected by Earth's surface and the atmosphere. The rest of the solar radiation is absorbed by Earth's surface and atmosphere and is converted to heat energy (infrared radiation) that warms Earth. The infrared radiation is emitted from Earth's surface again but not all of it escapes to outer space. Some of the radiation is absorbed and reemitted in all directions by greenhouse gas molecules. These gases act like a blanket that keeps Earth's surface and the lower atmosphere

warm. This is called the natural greenhouse effect. Earth's average temperature is 14° C, a comfortable temperature to sustain life. Without the greenhouse effect, so much infrared radiation would be lost that Earth would be an icy -19° C. At these frigid temperatures, life as we know it would not be possible.

Greenhouse gases

The atmosphere is a layer of gases that surround Earth. These gases are mostly nitrogen (78%) and oxygen (21%). There are also smaller amounts of other gases present in the atmosphere. Among these gases are the greenhouse gases that are responsible for trapping the sun's heat inside the atmosphere and keeping the planet warm. The most prominent greenhouse gases are water vapour (water in its

gaseous phase), carbon dioxide, nitrous oxide and methane. When plants, animals and bacteria became fossilised, the carbon inside them was buried as well. Over the years, they turned into fossil fuels, namely coal, oil and gas. Humans started burning large amounts of fossil fuels during the industrial revolution in the 19th century and this started releasing the ancient carbon back into the atmosphere as carbon dioxide. Humans have also been chopping down large forests, which reduce the Earth's natural ability to absorb greenhouse gases. Agricultural practices, in particular, have increased the levels of methane and nitrous oxide in the atmosphere. With an increase in greenhouse gases, Earth loses less heat, causing warming of the planet. This warming effect is called global warming but it leads to various changes in climate all over Earth, even making some places colder.

Why should I be worried about climate change?

THE following are, but a few, of the many consequences of the effect of climate change on South Africa alone:

If nothing is done about climate change and we keep on, among others, burning fossil fuels and burning down our forests at current rates, it is predicted that both South Africa's coastal and interior regions will experience a rise in temperature between 3-4 C and 6-7 C respectively by 2100.

Our biodiversity will be impacted severely, especially the grasslands, fynbos and succulent Karoo where a high level of extinctions is predicted. Commercial forestry is vulnerable to an increased frequency of wildfires and changes in available water in south western regions.

Strong trends of rising sea levels have been detected. We are not sure yet what impacts this could have on our seas, the creatures living in the seas or on the communities dependant on the sea. Increased poor health profile as a result of diseases such as cholera outbreaks which have been associated with extreme weather events, especially in poor, high density settlements.

Increase in the frequency and severity of extreme weather events such as flooding, fire, storms and drought. As South Africans we should be worried because among others:

A large proportion of our population has low resilience to extreme climate events (poverty; high disease burden, inadequate housing infrastructure and location).

Much of South Africa already has low and variable rainfall.

A significant proportion of our surface water resources are already fully allocated. Agriculture and fisheries are important for food security and local livelihoods.

Climate change creates environmental changes

• There is an increase in the average global temperature of about 1° C

• A 0.19 m rise in the average global sea level has been observed • There is reduced snow cover in the northern hemisphere, melting ice sheets in Greenland and Antarctica and there is a 4% decrease in Arctic ice

• Average precipitation over mid-latitude areas in the northern hemisphere has significantly increased. There are more heavy rainfall events over most land areas. This leads to a higher risk of flooding in certain areas

• Since the 1970s, droughts are longer and more intense causing drying in the Sahel, the Mediterranean, southern Africa and parts of southern Asia

• Though some places have become colder, the general trend is a decrease in cold days and nights, with an increase in heat waves, as well as warmer days and nights

• Over 30% of the increase in carbon dioxide has been absorbed by the oceans. The oceans are now 26% more acidic and in combination with warmer seawater, this is affecting marine life.



Montage: Nina Clark Chalmers Pictures: NASA, Kim Ludbrook

South Africa's response to outcomes of COP25

"WHILE we acknowledge the considerable work by the President of the Conference and the Parties, we were unable to achieve one of our fundamental objectives in attending this conference, namely finalising the Paris Agreement work programme on carbon markets," said Minister of Environment, Forestry and Fisheries, Ms Barbara Creecy.

"This Article is important to developing countries in general, because it offered the possibility of providing new, predictable and adequate funding for adaptation. Adaptation finance remains crucial for Africa's people in the face of deteriorating living conditions because of extreme weather phenomena associated with climate change.

"South Africa remains committed to both the spirit and the letter of the Paris Agreement. Accordingly, as we move towards COP 26 in Glasgow in 2020, we urge Parties not to abandon

their quest to promote ambition to combat the causes and consequences of climate change.

"Accordingly, in line with our sister nations on the African continent, we continue to believe that all three goals in the Paris Agreement must be advanced with equal determination and speed: advance against GHGs, advance the global adaptation goal and associated action; advance the means of implementation.

"These three related and equally important aspects to ambition are of concern to all South Africans. Our country and our communities have been battered in recent times by floods, drought, and relentless storms.

"Along with African nations, we are now diverting much-needed revenue for schools, hospitals, housing and infrastructure to emergency rescue and response to extreme weather events. Scientific reports (IPCC) presented during the course of COP25 strongly

indicate that worse is yet to come.

"Accordingly, our country, along with many other developing nations, urgently requires new, predictable and adequate financing for adaptation beyond voluntary donor assistance. Without adequate support in the form of finance, technology transfer and capacity development, our country will not be adequately equipped for our war on climate change.

"In this coming year, we will need to address the following important issues:"

1. How we take forward our commitment to review and enhance our Nationally Determined Contribution through a participatory and inclusive process;
2. Finalise our climate change legislative framework;
3. Support all levels of government through the District Delivery Model to develop and implement climate change mitigation and

adaptation strategies;

4. Set up the Presidential Climate Change Commission to lead our just transition to a lower carbon economy and climate resilient society, leaving no one behind.

"No one government or one country can respond alone to the challenges that lie ahead. In our quest to build a climate resilient economy and society, we will need to ensure we act with collective will and determination across all sectors of society both domestically and internationally. Now is the time for collective action," concluded Minister Creecy.



Minister of Environment, Forestry and Fisheries, Barbara Creecy.

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22 May is International Day for Biological Diversity

What is BIODIVERSITY?

Biodiversity is the variety of life on Earth and includes all living organisms, animal species, and groups of people. Naturally there is a big variety of all these things but they all connect with each other and the ENVIRONMENT.



Everything IS CONNECTED

Our world is very different from one part to the next. We have hot dry deserts and lush green forests. We have deep oceans and high mountains.

Our land has large creatures and tiny insects and yet we all live and connect on the planet. This is what life is all about. The special name for all these different things is called BIODIVERSITY



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What is our RESPONSIBILITY?

Biodiversity helps to keep the environment in a natural balance. For life on earth this is critical



We need to ensure that the earth stays in its natural balance

THE BENEFITS OF BIODIVERSITY

BIOLOGICAL RESOURCES

If there are enough resources, humans and all animal and plant species will continue to exist.

We need to make sure there is enough food to feed all the humans and animals on the planet.

ECOSYSTEM SERVICES

If we put systems in place that protect our water and protect the planet from pollution, we will all be taking responsibility for the future of the planet.

SOCIAL BENEFITS

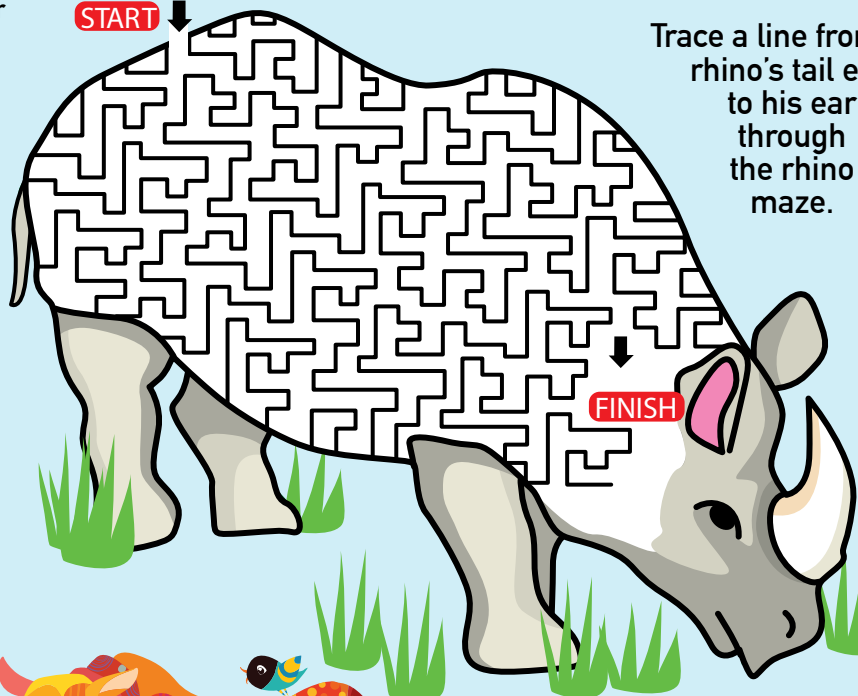
If everyone is educated and taught to be aware that the planet is in danger, we can all work together to ensure that the planet is protected.

RHINO FACTS:
Rhinos are on the critically endangered species list.

The white rhino is grey, not white, and is the biggest rhino and the next biggest land animal to an elephant.



START



Trace a line from the rhino's tail end to his ear through the rhino maze.

FINISH



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Enviro Hero Mr David Neguyuni

By Salome Tsoka

With the latest National Biodiversity Assessment indicating that wetlands are the most threatened of all South Africa's ecosystems, it has become imperative for conservation efforts to be heightened to ensure these natural rich biodiversity ecosystems are not lost forever. Working for Wetlands Operational Manager Mr David Neguyuni is striving to do just that.

Working tirelessly in the rehabilitation projects of the Lake Fundudzi Wetlands, Mr Neguyuni continuously goes the extra mile working day and night to ensure the protection and successful rehabilitation of these wetlands.

When did you start working on this project?

I started on the project in 2003 when it was then called the Fundudzi Development Project established by the seven villages around the lake. I was part of the steering committee representing my village when we approached the department and then started working together. I was hired as a contractor by the company implementing at the time and was responsible for monitoring the team and doing the work on the ground.

What have you achieved?

Over the years, we have successfully rehabilitated the Lake Fundudzi Wetlands which have improved significantly. We have also been continuously spreading awareness to the local villagers, teaching them about caring for wetlands. Working together with the chiefs, we have also managed to introduce a fine system to punish people who cut down indigenous trees near the wetlands. I currently oversee eight teams working in a number of villages in the Vhembe District Municipality including the wetlands by the Mutale River, made up of 112 workers with 60% of them being women and youth. We have built a solid relationship with community members who also guard and pay attention to the

rehabilitation interventions put in place by myself and my teams.

What drives you?

I believe the lake is a sacred place. It is not like a dam which is man made so, we are very lucky to have it and have to protect it. Many other people have to travel thousands of kilometres to see places like this lake but it's a blessing to our people as they have it in their backyard. The moment we reject the lake or not care about it, it will be no more. I believe it's a gift from the ancestors and it is our duty as people who live around the lake to protect it. Especially when it is within our power.

What does going the extra mile mean to you?

I believe going the extra mile is taking on more than what a normal person would do. And for me, attending to calls from my teams or community members in the early hours of the morning or in the dead of night doesn't bother me as I love what I do. I started wetland rehabilitation efforts in the Lake Fundudzi Wetlands because these are in my backyard. However, I have now expanded to other areas in the Vhembe District because I saw there was a need to spread our rehabilitation efforts to those areas as there was a lot of erosion in the wetlands and a lack of information in the communities.

What does passing the torch mean to you?

I come from humble beginnings as a contractor and I wouldn't be here if I was not guided along the way so, mentorship is very important to me. I was mentored so that I could do better and pass it on and now I mentor a lot of young people including a young man who is working on the wetlands in the Mutale river who aspires to follow in my footsteps.





DISGRACE: At least 90% of all household rubbish ends up in giant dump sites that are already full.
Photos by Alon Skuy/Gallo Images and Leon Sadiki



Experts in plastic waste management kicked off the Plastic Conference to discuss the impact of plastic waste on the environment and the challenges in eradicating this waste. Here is their take on what the problem is, what needs to be done, and what is being done.



LET'S TALK PLASTIC POLLUTION SOLUTIONS

Plastic waste management experts kicked off the colloquium to discuss the impact of plastic on the environment and challenges related to eradicating waste. Here is their take on what the problem is, what needs to be done, and what is being done:

■ **Bala Nengovhela**, head of waste management at the SA Local Government Association:

"About 64% of household waste is collected by municipalities. There are pockets where separation at source takes place, but there is not enough infrastructure."

■ **Mark Gordon**, deputy director-general of waste management at the Department of Environment, Forestry and Fisheries:

"Plastic pollution has the attention of the world. We need to facilitate a circular economy, closing the loop through reuse and recycling, and ensuring a restorative and regenerative economy where the value of plastic is not lost by being thrown away. Pressure from consumers makes a big difference. There is no legislation banning plastic straws, but many restaurants simply choose not to offer straws any more."

■ **Professor Cristina Trois**, University of KZN:

"Municipalities are the owners of post-consumer waste, but that waste is totally unsorted – 90% of all waste ends up in landfills and we have no idea what the composition of that waste is. Citizens should demand to know if waste is really recycled."

■ **Dr Morne du Plessis**, head of the World Wildlife Fund for Nature in SA:

"The plastic problem is far bigger than visible pollution is. Plastic pollution is fundamental to the climate crisis and human health as 20% of all carbon emissions come from plastics. By 2030, the carbon emissions from plastics will be equal to the carbon emissions from 100 Medupi power stations. Government must get much more serious as waste management is not enough. We must fix the accountability across the life cycle of plastics."

■ **Anton Hanekom**, executive director of Plastics SA:

"The problem in SA is that there's no proper waste management system. There's no infrastructure – waste has value, but if we can't collect it at the source, we can't recycle. We

need to change behaviour so that we collect what we're producing – we need to collect all of it."

■ **Luis Avellar**, Coca-Cola Africa general manager:

"One year ago, Coca-Cola launched the World Without Waste initiative, and our aim is to collect and recycle the equivalent of every bottle and sell globally by 2030. We are also looking at better designs for our products. We produce products that contribute to the global packaging problem – it is our responsibility to fix the problem."

■ **Simon Mbata**, chairman of the SA Waste Pickers Association:

"Waste pickers are the backbone of the recycling industry in South Africa, but, if the waste problem is managed properly, we should be the last generation of waste pickers in this country. We're working closely with the department and there is support from the industry, but the challenge is to make people understand that waste management is a service, and services must be paid for."

What you can do about plastic problem

IT'S easy to be overwhelmed by the magnitude of the plastic pollution problem, but we're not helpless.

There are many ways each of us can address the problem and be part of the solution. Here are just a few tips:

- 1 Separate at source.** This means that you don't throw all your household rubbish into the bin and then put it outside. These are the items that have value in the recycling industry: paper, glass, plastic, metal, tetra pak (foil-lined containers) and polystyrene. Wash them and put them in a separate, clear bag outside, where waste pickers can remove them and earn a living.
- 2 Do not litter.** Just because there are waste pickers and municipal workers cleaning up after us does not mean we can just throw things on to the ground. It is harmful to the environment and ugly to look at. It affects our health, blocks our waterways and disturbs vegetation. It can get washed into our rivers, streams and oceans, resulting in water pollution. If you can't find a bin nearby, keep the rubbish until you get home and then properly recycle it.
- 3 Use your muscle as a consumer.** Tell shops and fast food outlets that you want sustainable, recycled containers. Use social media to boost your voice.
- 4 Always reduce, reuse and recycle – it will save the world**



In partnership with the Department of Environment, Forestry and Fisheries

Enviro Events



8th Environmental Compliance and Enforcement Lekgotla

By Veronica Mahlaba

The Department of Environment, Forestry and Fisheries held the 8th Environmental Compliance and Enforcement Lekgotla from 9 – 12 September 2019 in Kimberley, Northern Cape. During the Lekgotla, the Green Scorpions (Environmental Management Inspectors) launched the 2018/19 National Environmental Compliance and Enforcement Report (NECER).

The theme for the 2019 Lekgotla is “Facing the Future Together” and supports a cohesive response to environmental challenges and greater collaboration between the various environmental authorities in South Africa to address concerns in the Blue, Green and Brown sub-sectors. These range from water and air pollution to chemical waste, dumping and litter.

The Environmental Management Inspectorate or Green Scorpions is a network of environmental compliance and enforcement officials from all spheres of government who work to ensure that industry, business, government and citizens comply with environmental legislation. The Inspectorate was created in terms of the National Environmental Management Act and came into effect on 1 May 2005.

74th Session of the United Nations General Assembly (UNGA)

By Devina Naidoo

The 74th session of the UN General Assembly (UNGA 74) was convened from 24 September 2019, under the theme of “Galvanizing multilateral efforts for poverty eradication, quality education, climate action and inclusion”. This year the UN Secretary-General (UNSG) convened a High Level week (23-27 September 2019) with a number of High Level dialogues and summits.

Minister Barbara Creecy and DEFF delegation, formed part of the South African delegation to UNGA as selected by the President. Minister represented President Ramaphosa at the Climate Summit and Financing for Development High level Dialogue.

To support efforts to implement the Paris Agreement and to increase ambition and climate action, UNSG brought together world leaders, from government, finance, business, and civil society to the Climate Summit on 23 September 2019. The UN 2019 Climate Summit was convened under the theme ‘A Race We Can Win. A Race We Must Win,’ and called for action in six areas: energy transition, climate finance and carbon pricing, industry transition, nature-based solutions, cities and local action, and resilience.



Government prioritises wildlife

By Veronica Mahlaba



Above: Representatives from DEFF, UNEP, GWP, World Bank and Minister Barbara Creecy at the opening of the 3rd Annual Global Wildlife Programme South Africa Conference.



Above: Government focal points and project management units from the 29 GWP countries, implementing partners, NGO representatives and technical experts will attend the conference.

Minister Barbara Creecy officially open the 3rd Annual Global Wildlife Programme (GWP) South Africa Conference in Pretoria on 29 October 2019. The aim was to strengthen collaboration between government and partners to implement GWP projects, and to stimulate new thinking and opportunities for conservation and development.

The conference took place under the theme: Investing in the Wildlife Economy for Livelihoods and Conservation, and comprised of technical discussions, interactive working groups and a field visit to the Kruger National Park.

GWP is a Global Environment Facility (GEF) funded and World Bank Group-led \$213 million program. It consists of 29 countries across Africa, Asia, and Latin America and the Caribbean. Since 2016, 19 projects have been implemented, using GEF-6 funding, under an integrated framework to support wildlife conservation and crime prevention for sustainable development. In June 2019, 10 additional countries joined the program (using GEF-7 funds).

Minister Creecy explained that a major threat to the legitimate economic opportunities is the international illegal trade in wildlife and wildlife products. Wildlife crime is also now the fourth most lucrative form of organized crime in the world, and is estimated to be worth \$23 billion per year. "It threatens local community development and livelihoods, local and national revenue streams, undermines the rule of law, is a threat to the existence of iconic species and compromises local and global security," said the Minister.

The conference was held to increase awareness of experiences from Africa, Asia, and Latin America and the Caribbean on building and growing a wildlife-based economy. Enhance the understanding of the range of projects participating in the GWP and share good practices in project design and implementation, and discuss opportunities to provide input into Global Environment Fund's project design activities.



Above: Minister Creecy explained that a major threat to the legitimate economic opportunities is the international illegal trade in wildlife and wildlife products.

Minister Creecy engages Waste Sector Stakeholders

By Salome Tsoka

Minister Barbara Creecy held a waste sector stakeholder engagement at the Protea Hotel in Braamfontein, Johannesburg on 05 March 2020 to further discuss the revised National Waste Management Strategy which had been opened for public comment. Minister Creecy assured stakeholders that the Department will incorporate all comments received and ensure that the strategy will look into things in more detail.



Beach mat makes a big difference

By Benedict Mlaba

As part of the Coastal Access Awareness Programme, the Department of Environment, Forestry, and Fisheries unveiled a disability beach mat at the Humewood Beach in Port Elizabeth, on Friday, 06 March 2020. The beach mat is made out of recycled plastic and extends to the sea. It will be stationed at Humewood Beach for three months before it is moved to Durban.

A member of the Amputee Support Group, Mr Brian Paddey, described the beach mat as life changing. "I am really blessed and honoured to have been a part of this launch. The beach mat is going to have a positive impact on the physically disabled community in Port Elizabeth," he said.

The manager for Nelson Mandela Bay beaches, resorts and events, Mr Kurt Cain said as one of the blue flag status beaches in Nelson Mandela Bay Municipality, Humewood Beach was the ideal location for the beach mats because it offered easy access to the beach and parking area for persons with mobility challenges. The beach connects to a walk-way that allows for easy movement," he explained.

Mr Cain said the mat will be rolled out every day for public use. "We have trained and assigned a number of lifeguards that will ensure the mat is rolled out every day," he added

Over 200 learners from surrounding schools also attended the launch as part of the department's Coastal Access Awareness programme which aims to inform and educate the general public about their right to access all areas surrounding our coastal line while tackling marine and coastal issues.

DEFF official, Mr Tshepiso Mannokgotla emphasised the importance of keeping our oceans space clean. "Whilst it is our democratic right to access all coastal areas of our country, it is also very important to do so responsibly, by obeying the rules, and by keeping our oceans clean from litter and harmful substances," he said.



Above: Above: DEFF official, Ms Jessica du Toit, demonstrating to learners how pollution ends up in the oceans.



Above: Learners from Northern Light School also enjoyed their first time at the beach during the launch of the beach mat.



Above: The beach mat connects to the beach from a walk-way and allows for easy access.



About the contributor: Benedict Mlaba

Mr Benedict Mlaba is an intern: Internal and External Communications in the Directorate: Communication Services in Cape Town. He holds a BA Communications Science Degree.

HAY'KHONA CORONA!

YOUR ACTIONS CAN SAVE LIVES!



CORONA VIRUS (COVID-19) HAS ALREADY KILLED MANY PEOPLE AROUND THE WORLD. PROPER HANDWASHING CAN BE THE DIFFERENCE BETWEEN LIFE AND DEATH.

WASH YOUR HANDS AND STOP THE SPREAD!

1

Wet your hands and put soap on them.



2

Scrub all sides for 20 seconds including palms, back of your hands and in between your fingers.



3



Sing the "Happy Birthday" song two times to remember to spend 20 seconds washing.

4

Rinse well with clean water.



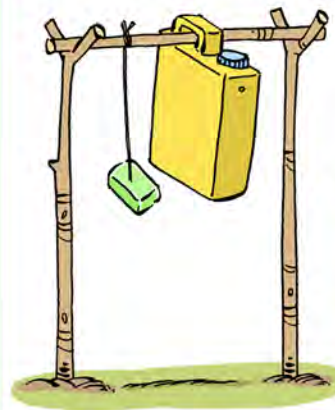
5

Dry with a clean cloth or wave your hands in the air.



6

If you don't have running water, make your own tippy tap ...



... or use alcohol-based hand sanitiser.

IF YOU TAKE CARE OF YOURSELF, YOU TAKE CARE OF OTHERS!



LOOK OUT FOR MORE HAY'KHONA CORONA MESSAGES.

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