



WWF

MAGAZINE

AUGUST

2011

# Panda Bulletin

WWF-SA SUPPORTERS' MAGAZINE

The great fracking debate  
Is nuclear power an option?  
Securing our water future  
COP17 descends on Durban

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## PANDA BULLETIN TEAM

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## From the CEO's desk

It seems that environmental issues are heating up, so to speak, and WWF is increasingly called upon to play a thought leadership role. In particular, we frequently get asked our view on contentious power sources like nuclear energy (especially in the light of the recent Fukushima disaster) and shale gas extracted by means of fracking (which Shell hopes to attain from the Karoo). You can read WWF's view on these two power sources on pages 10 and 11 respectively.

In the coming months you will hear more and more about COP17 (the Conference of the Parties of the United Nations Framework Convention on Climate Change) which will be held in Durban at the end of this year.

As the onslaught on the environment continues, it is important to continuously equip new recruits for the fight for our planet. We are very proud to announce the launch of our Professional Internship Placement Programme which sees 5 young graduates employed by WWF for one year. During the year each intern is mentored by a senior staff member to ensure maximum career and personal growth.

There have also been some exciting developments with regards to WWF staff and we are delighted to welcome back Dr Deon Nel who is heading up our new Biodiversity Unit, along with Christine Colvin (Senior Manager: Freshwater Programme) and Dr Eleanor Yeld-Hutchings (Manager: Coastal Conservation Partnership, Cape Peninsula).

Finally, it was with great sadness that we learnt of the death of Professor Kader Asmal. Professor Asmal was a firm friend to WWF, embodied WWF's vision and constantly worked towards a future in which people live in harmony with nature. For a Living Planet

A handwritten signature in black ink, appearing to read 'Morris du P...'.

# WWF TURNS 50

Fifty years ago, a small group of concerned scientists, naturalists, business and political leaders joined together to save our Earth's wildlife from extinction. Initially called The World Wildlife Fund, the organisation changed its name to the World Wide Fund for Nature to more accurately reflect its work, which is far broader than the conservation of endangered species. The organisation they founded has since grown into the world's leading conservation organisation. Today, we work in more than 100 countries around the globe and have close to 5 million members worldwide.

WWF South Africa was established over 40 years ago and has increasingly emphasized human footprint reduction – wherein we partner with industry to reduce their environmental impact and work with government to improve policies around climate change and energy – in addition to our traditional emphasis on biodiversity – which incorporates issues of food and water security as well as species conservation.

In celebration of our 50th anniversary, WWF International partnered with the Royal Mint to launch a collection of WWF commemorative silver coins are being sold individually and in a coin set in certain countries around the world. Royalties, as a result of the sale will contribute to WWF's conservation efforts. The Royal Mint, in



turn, has commissioned various minting companies in certain countries, including the South African Mint Company, to develop a localized silver collector's coin which will be included in the international WWF collection and sold locally.

The South African coin was struck on top of one of our country's most beautiful natural icons, Table Mountain, and features WWF's panda logo together with South Africa's national bird, the endangered blue crane. These two species – one local and one from abroad – illustrate both the local and global nature of WWF's work. Both species are under severe threat due to the destruction of their habitats and WWF has worked to ensure the survival of both.

Proceeds from the sales of the South African coin will be donated to WWF's conservation work in South Africa. This work includes a

biodiversity focus which incorporates issues of food and water security as well as species conservation; and a sustainability focus which includes WWF's work with industry to reduce their environmental impact and work with government to improve policies around climate change and energy.

In this important anniversary year, we are proud of our heritage, our past work, and our many accomplishments. But we also know that there's still work to be done. South Africa's natural resources – such as freshwater, arable land, clean air, plants and animals – are finite. As a nation we have to protect and ensure the sustainable use of these resources to ensure on-going food security, human health and overall economic prosperity and this is what WWF focuses on. So in this year of celebration, we are not just looking back, but actively moving forward and working for the future. Like our founders half a century ago, we begin our next 50 years of conservation work with a strong determination and a message of hope for all: that together, we can create a future in which people live in harmony with nature.

**A limited number of the sterling silver, crown-size commemorative coins is available for order. For more information visit [www.samint.co.za](http://www.samint.co.za).**

## In memory of Kader Asmal

It was with great sadness that WWF learnt about the passing of Professor Kader Asmal. Professor Asmal championed access to water for the poor as well as sustainable use of all natural resources.

“Professor Kader Asmal will be remembered for his enormous contribution to our country and on behalf of the board and staff of WWF South Africa we send our condolences to his family and mourn the passing of one of the greatest South Africans,” said Dr Morné du Plessis, CEO of WWF in South Africa.

Du Plessis said Professor Asmal played a crucial role in advancing effective water resource management in South Africa.

Additionally, Professor Asmal was the patron of the innovative WWF South Africa Water Neutral Programme. The programme seeks to empower corporate South Africa to help create a water secure future by reducing demand, increasing supply and maintaining the health of our fragile fresh water systems.

“Professor Asmal understood and articulated – in his engaging, lively manner – the role that government, business, civil society and

the public have to play in preserving biodiversity and the ecological systems that sustain us all.

“He turned this conviction into action, passing the National Water Act and expediting water provision to poor communities,” Dr du Plessis added.

“Professor Asmal spearheaded the Working for Water project, which facilitates the clearing of invasive alien vegetation, thus rehabilitating critical catchment areas and releasing water back into natural water systems. The programme also continues to create much needed employment in disadvantaged areas and empowers many women and the youth.”

In 2008 Professor Asmal wrote: “Water has been called the oil of the 21st century, with all the political and economic pressures accompanying that. Failure to ensure its judicious use will put paid to aspirations for the kind of economic growth required to provide our citizens with the basic rights they're entitled to under our Constitution. No fresh water, no economic growth, no social justice.”



# CONSERVATION NEWS

## The princess and the panda

Her Serene Royal Highness, Princess Charlene of Monaco has become co-patron of The Giving Organisation (along with Archbishop Emeritus Desmond Tutu). WWF is one of the beneficiaries of The Giving Organisation and WWF presented the Princess with a panda on her recent visit to the country.

For more information, please visit [www.thegivingorganisation.org.za](http://www.thegivingorganisation.org.za)

## Pairing wines and seafood

Two Oceans, one of South Africa's leading wine brands, is supporting WWF SASSI, the WWF Southern African Sustainable Seafood Initiative that helps to improve the conservation status of overexploited seafood in local oceans.

In the first phase of its collaboration, the brand is funding the printing of wallet-sized information cards that identify fish that can be eaten without danger of depleting resources. The cards, for distribution to restaurants, retailers and fisheries, also identify those fish considered endangered or under threat of becoming endangered.

The next phase will involve in-store merchandising initiatives designed to promote awareness of the fish species, fishing and farming methods that pose less harm to the environment than others, so consumers are better equipped to make informed choices in helping to promote marine sustainability.

For more information on WWF SASSI, visit [www.wwf.org.za/sassi](http://www.wwf.org.za/sassi)

## Isibindi Walking Safaris competition raises R6 000 for rhinos

Over R6 000 was raised for the Rhino Anti-Poaching Campaign through the Isibindi Walking Safaris competition. Thank you to all who participated!



## UCT student awarded Prince Bernhard Scholarship

Kashiefa Parker, a master's student with the Environmental Evaluation Unit (EEU) in the Department of Environmental and Geographical Sciences at the University of Cape Town (UCT) has been awarded a 2011 Prince Bernhard Scholarship through WWF South Africa to support her studies entitled: Integrating Human Dimensions in Marine Protected Area Planning and Management, the case of the Struisbaai Small Fisheries.

The WWF Prince Bernhard Scholarship (PBS) is awarded to individuals from developing countries who wish to pursue formal studies or professional training in the field of conservation.

For more information about the Scholarship and the 2011 recipients, please visit: [www.panda.org/scholarships](http://www.panda.org/scholarships).

## KZN Rhinos get 'eye in the sky' protection

Rhinos in KwaZulu-Natal's Hluhluwe-iMfolozi Park now have extra protection since the arrival of a Bantam light aircraft which will be used in the battle against poachers. The aircraft, which was donated by WWF's Black Rhino Range Expansion Project, will be used to patrol the park's boundary fence, to detect illegal activities and to deter criminals from entering the park. Poachers typically favour terrain that is inaccessible to vehicles and such terrain will now be easier to monitor.

"It is essential to stay ahead in terms of physical presence, technology, equipment and intelligence," says a member of Hluhluwe-iMfolozi Park's anti-poaching unit. "Experience in other parks shows that once you have air support, success in anti-poaching operations increases dramatically."

The Black Rhino Range Expansion Project is a partnership between WWF, Ezemvelo KZN Wildlife and the Eastern Cape Parks and Tourism Agency. It aims to increase numbers of the critically endangered black rhino by creating new populations in which the animals can rapidly breed. The Project has six partner sites so far and has translocated nearly 100 black rhino.

The aircraft will be based in Hluhluwe but will also be available, where necessary, on other Black Rhino Range Expansion Project sites in northern KwaZulu-Natal.



# BUSINESS NEWS

## Membership/Project funding

Thank you to all our Corporate Members who have renewed their support through their corporate memberships.

New members	
<b>PRINCIPAL MEMBER:</b>	Tongaat Hulett Ltd
<b>SENIOR MEMBERS:</b>	Mix Telematics, Distell, Bowman Gilfillan, Nissan SA, HSBC, African Bank, Sonae Novobord, Pioneer Foods (Pty) Ltd
<b>MEMBERS:</b>	Isibindi Africa Lodges

Project funding	
<b>NAMPAK:</b>	Eco-Schools National Office sole sponsor
<b>XSTRATA TRUST:</b>	Eco-Schools Mpumalanga Regional Coordinator & Grasslands Nodes
<b>DE BEERS FUND:</b>	Eco-Schools Limpopo Regional Coordinator & Grasslands Node
<b>NESTLÉ:</b>	Eco-Schools Mdantsane Node
<b>INQABA BIOTEC:</b>	African Rhino Programme
<b>ASSORE CHAIRMAN'S FUND:</b>	General sponsorship
<b>NOKIA</b>	Eco-Schools Capacity Building Workshop

Donation-in-kind	
Thank you to Pick n Pay and HSBC for each sponsoring a Corporate membership function.	
Thank you to Nissan SA (Pty) Ltd for the donation of a 4x4 Nissan Twin Cab for Water Balance.	

## GET INVOLVED

Become a Corporate Member today!

### Cape Town Members

Contact Virginia Styer on 021 657 6600 or [vstyier@wwf.org.za](mailto:vstyier@wwf.org.za)

### Johannesburg Members

Contact Jenny Williams on 011 447 1213 or [jwilliams@wwf.org.za](mailto:jwilliams@wwf.org.za)

Want to invest in WWF's conservation work or become a Corporate Partner?

Contact Marli Goussard on 021 657 6600 or [mgoussard@wwf.org.za](mailto:mgoussard@wwf.org.za)



## Pick n Pay Smart Shoppers: Donate now!

WWF has been chosen as one of 6 charity organisations to benefit from the Pick n Pay Smart Shopper Initiative. Smart shoppers can now donate their points to WWF at one of 880 in-store kiosks countrywide.

For more information, please visit [www.picknpay.co.za](http://www.picknpay.co.za)



## Getaway

Going places, doing things in Africa

## Getaway Magazine helps save the Rhino

Getaway Magazine is encouraging the online community to help save the Rhino. For every person that "likes" their Facebook page, they will donate R5 to the WWF African Rhino Programme.



Follow WWF South Africa on Facebook by visiting [www.facebook.com/WWFSA](http://www.facebook.com/WWFSA)

# SUSTAINABLE BUSINESS NEWS

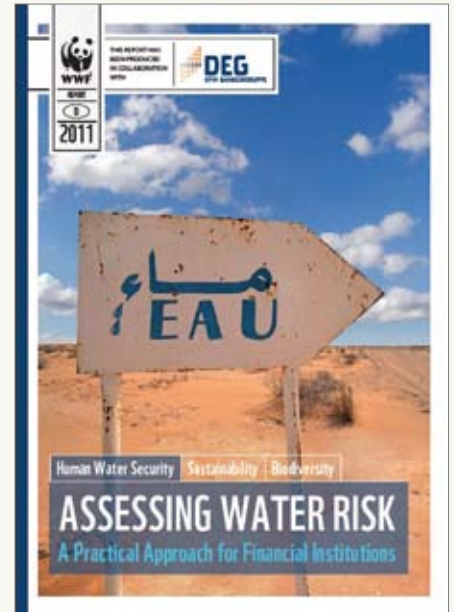
## Water shortage is a growth risk for business

According to a new study by WWF and German development bank DEG, the shortage of freshwater is not only an increasingly high ecological risk, but it is also rapidly becoming a major business growth risk – one that investors need to take into account. “Assessing water risk: a practical approach for financial institutions” states that climate change, population growth and increasing living standards are contributing to the rising pressure on already scarce water resources, particularly in developing countries.

191 out of over 300 companies studied as part of the report showed high potential business risk related to freshwater. Agribusiness is at high risk since this sector accounts for 70% of global water

consumption. If counter-measures are not taken now, water-intensive agricultural products may become scarce in the future and the companies concerned may face economic risks. The report outlines possible courses of action for companies from different industries and regions which may be threatened by water shortage or pollution, either directly or in their supply chain.

The study resulted in the development of a water risk filter tool for financial institutions. WWF South Africa plans to take part in the second phase of the study, which will see the risk filter tool being refined and eventually made available to a wider audience.



## Sustainable agriculture

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### Life Cycle Assessment of SA's liquid milk industry yields some surprising results

In 2010 WWF commissioned a full value chain life cycle analysis (LCA) of fluid milk. This is the first time a full value chain study on a food product has been undertaken in South Africa. Conducted by The Green House, SA's leading LCA practitioners, it has revealed fascinating information regarding the water, land and carbon impacts of milk production. Read the next *Panda Bulletin* to learn just what it takes to get milk to our breakfast table.

### How-to handbook hailed as a sustainability milestone for Rooibos industry

WWF is pleased to have played a pivotal role in the *Handbook for Implementing Rooibos Sustainability Standards*, which is now available to Rooibos farmers. Rooibos is a product of South Africa's unique biodiversity and grows nowhere else in the world. WWF works to support better management practices for the product which is farmed in the Cape Floristic Region, a biodiversity hotspot and WWF priority area.

The handbook is jam packed with information, illustrations and contact information all aimed at making it easier to farm Rooibos according to tried and tested better management practices. It provides practical advice on how to implement management systems and actions on the farm that comply with recognised sustainability standards.

Although using this handbook will help to prepare for auditing and certification, it has a far broader application in pursuing better farming practices. It is designed to be used as a reference work where farmers can find answers to a full spectrum of social and environmental questions.

The *Handbook for Implementing Rooibos Standards* was funded by the Agricultural Department of the Embassy of the Kingdom of the Netherlands through the WWF and Conservation International South Africa led GreenChoice Alliance.

# LEGACY NEWS

## Extending your hopes and dreams

Leaving part of your estate to charity is a generous gift that ensures a lasting legacy.

Elizabeth Harding, a noteworthy bird-lover and adventurer, is an example of this. She was passionate about nature and travelling to interesting places and spent a lot of time on horseback. She rode across Spain, went climbing in the Himalayas, and travelled to India on numerous occasions. On one of her adventures aboard an Ecuadorian vessel, Elizabeth met her husband, Wallace. Together they embarked on more adventures, visiting the Inca ruins at Machu Picchu in Peru and journeying up the Amazon River.

Elizabeth lived a full life and when she passed away, surprised her friends and even her husband with the size of her estate. In 1990, WWF received a very generous bequest of R8 million from Elizabeth whose love for nature was something she wanted to share and ensure for future generations.

Thanks to her generosity, WWF has, to date, purchased a total of 19,182 hectares of conservation land in the Agulhas, Cederberg, Riverlands, Table Mountain and West Coast regions and further land is currently being purchased in the Overberg. In addition, birding facilities were improved

in the West Coast National Park, specifically the bird hide at Geelbek, which was a favourite of hers.

These wonderful conservation gains are the direct result of Elizabeth's donation and partnership with WWF and enables both Elizabeth's legacy and WWF's work to live on.

While not all bequests are as large as Elizabeth's, we value every cent we receive because it supports the work we do. Bequest funds are particularly important to us, because they allow us to plan long-term conservation interventions which allow us to have maximum impact.

WWF South Africa and Sentinel International Trust Company have entered into a strategic relationship to benefit WWF and individuals who nominate the organisation as a beneficiary in their will. Sentinel will draft wills, free of charge, for any individual who nominates WWF as a beneficiary and appoints Sentinel as the executor. Furthermore, Sentinel has agreed to rebate 35% of their executor fees back to the organisation.

**If you would like to discuss leaving a legacy to WWF, please contact Denise Samson on 021 657 6600 or via email on [legacy@wwf.org.za](mailto:legacy@wwf.org.za)**

**To make use of Sentinel's offer please contact their representatives directly:**

**Johannesburg:  
Irene du Plessis 011 784 0004**

**Cape Town:  
Ulrich Hoffmann 021 674 0390**

**Durban:  
Dirk van Ryneveld 031 265 3320**

**Port Elizabeth:  
Johann De Vos 041 365 2532**



The bird hide at Geelbek, West Coast National Park



© MARTIN HARVEY / CANON

Elizabeth's generosity has contributed towards conservation in areas like the Table Mountain National Park

# WWF WELCOMES 5 INTERNS

Through funding secured from The Hoffmann Foundation and Sanlam, WWF South Africa will be offering internship placements to five post graduate students for each of the next three years (2011 – 2013).

These placements provide interns with the opportunity to apply their academic learning in the real work context, to gain valuable foundation experience and ultimately afford them a bridging opportunity to launch their career in the environmental sector.

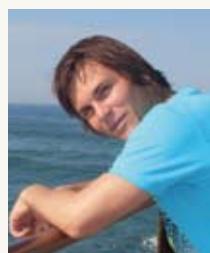
**Daisy Kotsedi** joined WWF in March this year as the Intern in the **Integrated Catchment Management Freshwater Programme**. Her role is to map major water users in order to help them understand how their operations are located within socio-ecological landscapes and how this affects freshwater resources and communications in the vicinity of the operations. Daisy studied Microbiology and Botany at the Nelson Mandela Metropolitan University where she obtained both an Honours and Master's degree in Botany (estuarine ecology).



*"I hope to use my time at WWF as a learning opportunity and hope that it leads to further opportunities in the sector."*

Daisy Kotsedi

**Jaco du Toit** began his internship in February as the **Climate Change Intern in the Living Planet Unit**. His role is broad and includes organising workshops on renewable energy, a literature review of civil society positions on climate change, preparing a funding proposal and monitoring parliamentary committees. In the lead up to COP17, he will be involved in assisting the WWF climate change negotiation team.



*"I am passionate about sustainable development and would like to help people in South Africa improve their quality of life without degrading our natural environment."*

Jaco du Toit

Jaco has a BA in Decision Making and Value Studies with majors in Economics, Political Science and Decision Making as well as an MPhil in Sustainable Development, Planning and Management.

**Simonne Stellenboom** began her internship in April and is working as the **Contract Administrator within WWF's Finance and Business Support Unit**. She has a Bachelor's Degree in General Management and Honours in Corporate Finance (Finance/Investments/Insurance).

**Megan van der Bank** began her internship within the **Environmental Leaders Programme**, moving over to the **Marine Programme** in July 2011. Her role was to work with



*"Following the internship year, I plan to pursue my love for Risk Management and Finance. I hope that my hard work this year will result in good references for the future."*

Simonne Stellenboom

schools, tertiary institutions and other environmental organisations to create environmental awareness and to promote the development of current and future leaders within the environmental sector.

Since July, Megan's Marine Programme work focuses on the Agulhas/Arniston/Struisbaai area, where she assists with the implementation of the Draft Policy on the Small-Scale fisheries sector in South Africa.

Megan completed her bachelor's degree at UWC in Biodiversity and Conservation Biology. She went on to complete her Honours and Masters at the same institution in Aquaculture (fish parasitology) and Marine Ecology respectively.



*"I know that I want to make a significant contribution to the conservation of our marine environment. Already I feel that I have gained invaluable knowledge in my short time at WWF."* Megan van der Bank

**Dale Wright** is interning as an Extension Officer in the **Biodiversity and Wine Initiative (BWI)**. His duties include engaging with and providing information to wine farmers as well as auditing BWI members in order to ensure their compliance with national legislation relating to the environment.

Dale completed an Honours degree in Zoology and an MSc in Conservation Biology at UCT.



*"I'm particularly interested in the challenge of communicating the conservation message to society at large and in the psychology behind environmental advocacy and conservation action from members of the public."*

Dale Wright

# NUCLEAR: VIABLE OR VITRIOLIC?

The Fukushima nuclear disaster that began in March this year was a stark reminder of the realities that come with depending on nuclear as a source of power.

Since the disaster, in which an earthquake and subsequent tsunami damaged the Japanese nuclear plant causing an eventual meltdown, several governments, particularly in Europe, are reviewing the future role of nuclear power in their country's energy mix. In recent months, the Swiss Federal Council decided to phase out nuclear in energy plans of new plants, Italians voted no to nuclear power in a national referendum, and Germany announced its intention to phase out all nuclear power plants by 2022, while doubling renewable capacity to 35% by 2020.

While nuclear investment is being reconsidered internationally, South Africa is still committed to integrating nuclear power into its electricity generation portfolio.

South Africa's Integrated Resource Plan, which identifies the country's energy mix up to 2030, demonstrates this commitment, with some 22,6% (the equivalent of 9 600 MW) of new generation capacity to come from nuclear. Speaking during her Budget vote speech in May, Energy Minister Dipuo Peters emphasised this adherence to nuclear, while adding that the Department of Energy's approach is a "cautious" one.

The Fukushima disaster has highlighted the fact that despite the best efforts of the governments and companies involved, nuclear power remains dangerous and difficult to control. The entire commercial chain of processing of nuclear raw materials from nuclear mining; operating nuclear power stations; handling nuclear waste and finally re-processing, is full of leaks and contamination and produces a highly toxic legacy for thousands of years to come. In addition, the creation and handling of highly toxic nuclear products and the unsolved issue of safe storage of waste demonstrates the unsustainability of the technology.

Under these circumstances, nuclear power can hardly be considered to rank among the clean sources of energy we need if we are



A nuclear power station in Europe

## 22,6%

**THE AMOUNT OF SOUTH AFRICA'S ENERGY THAT WILL BE GENERATED BY NUCLEAR BY 2030, AS PER SOUTH AFRICA'S INTEGRATED RESOURCE PLAN.**

to tackle climate change. In South Africa, the prevailing view is that a fleet of nuclear would provide a clean alternative to our dirty coal-fired power stations. In reality, it is neither a clean source of energy, nor could it help to reduce energy-related human impact on the environment. Replacing coal-fired power stations with nuclear energy replaces one fundamental environmental problem with another, albeit different problem.

Beyond the threat that nuclear poses to people and the environment, its implementation in a country like South Africa has a number of practical failings.

Nuclear is an expensive technology that usually works out being more expensive than available renewable energy technologies, especially when considering the full life-cycle costs.

It is also impractical for a country like ours as it takes long periods of time to commission nuclear power plants – more time than we can afford in our current state of energy insecurity.

The bulk of the technology and expertise needed to establish nuclear power plants has to be imported to South Africa, doing little to stimulate the local economy and increase employment. Compared with other energy producing technologies, nuclear has low job creation potential, limiting employment opportunities to highly qualified staff in a very capital intensive industrial sector.

Nuclear power in South Africa would also entrench a centralised power supply system, with the need for inefficient large grid systems, rather than a decentralised system with expansion of electricity services to the more remote areas of the country.

Taking these factors into consideration, nuclear power as a primary source of energy is not a sustainable solution to power generation. As with other nuclear disasters, such as Chernobyl in 1986, this latest accident will have far-reaching and unforeseen effects for generations to come. We have a responsibility to focus on alternative clean, safe and sustainable sources of power generation.

# THE GREAT FRACKING DEBATE

The debate around unconventional gas exploration in the Karoo has been raging, following the applications by Shell and other companies to the Petroleum Agency of South Africa to explore some 90 000 km<sup>2</sup> of the Karoo and the proposed fracking of 270-million-year-old geological formations five kilometres underground.

A moratorium has temporarily been placed on applications following public outcry, but the debate is by no means over. While the South African government takes some time to establish its own policy around the process, WWF maintains that given the best available evidence, fracking should not be a consideration for South Africa.

## What is fracking?

Unconventional gas, or natural gas that is trapped deep within geological formations and is therefore not readily available for extraction, is being seen by some as a potential solution to global energy supply. Accessing this gas most commonly necessitates hydraulic fracturing, or high-volume, slick water hydraulic fracturing (HVSWHF), commonly known as 'fracking'. Simply put, fracking involves drilling extremely deep wells into horizontal geological formations and pumping in a mixture of water, chemicals and sand to break up the shale rock and free the natural gas trapped inside.

## What's wrong with fracking?

The extraction of natural gas has recently been proposed as the answer to South Africa's energy crisis, thus potentially justifying the fracking process. The risks, however, far outweigh the perceived benefits. WWF clearly demonstrated this in its technical position paper that was recently submitted to government.

South Africa does not need unconventional gas to meet growing energy demand. The country has far more immediately viable and sustainable energy development options than shale gas in the form of renewable energy resources. National and global energy supply scenarios clearly indicate the greater economic growth advantages of prioritising renewable energy above fossil fuels.

Investment in shale gas exploration would present a barrier to achieving

truly sustainable energy supply and the opportunities and benefits of a just transition to renewable energy, as the process would divert investment away from better solutions with far greater public benefits, such as renewable energy technologies.

Meanwhile, the exploitation of possible gas resources is incompatible with South Africa's international commitments to address climate change.

To begin with, natural gas is not the 'green', relatively low-impact fossil fuel source people often think it is. Natural gas is almost entirely composed of methane, an extremely powerful greenhouse gas (GHG). As a greenhouse gas, Methane is far more powerful than CO<sub>2</sub> in terms of its potential contribution to global warming.

Extracting unconventional gas is also highly carbon-intensive, involving extensive GHG emissions – probably more so than petroleum products and possibly no better than coal. Extensive fracking and geological modification is required to determine the probable extent of the resource potentially available for extraction. Processing would involve substantial methane gas leakage during production, transport and processing of natural gas.

Fracking also requires huge volumes of water – a particularly scarce resource in

the Karoo – and extensive infrastructure, typically requiring several injection wells per square kilometre, as well as management of large volumes of flammable, potentially toxic drilling mud from each site. The process therefore poses high risks, particularly of ground water contamination. Interference with ancient geological formations may not only release methane into aquifers, but also cause new connections between aquifers. It would take many years to develop a reasonable understanding of the consequences of such risks.

Finally, exploitation of unconventional gas is not consistent with government commitments to job creation and development of the 'green economy'. Even if it met the most optimistic cost projections and impact managements, employment rates per unit of investment, or per unit of energy supplied from shale gas, would be far lower than for renewable energy and most opportunities for energy efficiency and conservation.

Natural gas exploration in the Karoo region would risk economic impacts for other sectors, including the agriculture and tourism economy and the prospects for winning South Africa's bid to host the global Square Kilometre Array radio-telescope project. As the full impacts of natural gas extraction begin to emerge internationally, WWF maintains that any possible short-term gains to be had from fracking would squander long-term economic and environmental sustainability of the Karoo and South Africa's low carbon economy objectives.

© MARTIN HARVEY / CANON



Karoo vegetation typical of winter rainfall areas

**WWF's Position Paper on Shale Gas prospects and exploration in South Africa is available on the home page of the WWF South Africa website [www.wwf.org.za](http://www.wwf.org.za).**

# WATER SECURITY

## Investment in infrastructure alone not enough for a water-secure future

South Africa needs to be more sensible about the use and management of land and water resources, says **Dr Mao Amis**. Many South Africans, especially those living in urban areas, do not have a full understanding of where the water that flows from their taps really comes from, and the key role clean catchments play in providing it.

Additionally, the country has a history and culture of investing substantially more in building and maintaining man-made water infrastructure without adequately looking into the health of our freshwater ecosystems – the very source of our water.

South Africa, being a water scarce country with high variability in rainfall patterns, requires substantial investment in storage infrastructure to improve the assurance of supply. It is important to emphasise, however, that water security should not be equated with infrastructure development alone. To fully secure a country's water security also requires investment in the natural systems that are responsible for generating that water in the first place. The water cycle is a complex system and

water resource management needs to reflect this complexity. There are no 'quick-fixes' – such as the proposed desalination plants referred to by the Minister, two of which are currently out of commission. Limits of our current energy supply and rising energy costs make desalination an unfavourable option in the long run.

Also of importance is the need for cooperative governance in protecting our critical water sources. It is encouraging that the Department of Water Affairs is working very closely with Municipalities to address challenges of water quality, infrastructure maintenance and capacity building, however, the department also needs to extend the same spirit of cooperative governance to its



Dr Mao Amis (Manager: Integrated Catchment Management Programme, funded by Sanlam)

sister departments, especially that of Mineral Resources.

A recent study of catchments in Mpumalanga showed that there are applications for mining rights in 40% of the total area of the catchments responsible for generating the highest water yield in the province. If these mining rights are granted, this will directly compromise water security in that province. WWF calls on the Department of Water Affairs to take a proactive stance in protecting those critical catchments responsible for water security throughout the country, by working closely with sister departments to ensure that these water factories are protected. Were we not currently dealing with the legacy of mining on our hydrological systems – in the form of rising Acid Mine Drainage – we could perhaps be forgiven for not understanding the full impacts that mining will have on these systems, but this is clearly not the case.

It is commendable that the department is engaged in long term infrastructure planning in order to close the gap between water supply and demand. This will help avert knee-jerk reactive interventions which are likely to be less effective and more ecologically damaging. However, we encourage the Minister to also lift her gaze from engineered infrastructure to the mountains, watersheds and ecological systems that will supply water to these dams. We can never reach water security without first securing our natural ecological infrastructure.



Lotheni River

© PETER CHADWICK / WWF-SA

# COP17 DESCENDS ON DURBAN

In November this year, South Africa will host the 17th Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC).

Better known as COP17, the event is an international meeting in which countries that are party to the convention – nearly 200 of them – negotiate what will be done to reduce average global temperature rise and manage the temperature increases that are inevitable.

The Convention Framework recognises that the climate system is a shared resource and that its stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases.

A COP is intended as the space in which governments of countries under the convention gather and share information on greenhouse gas emissions, national policies and best practices. At these meetings they also launch national strategies for tackling greenhouse gas emissions and adapting to expected impacts including the provision of financial and technological support to developing countries, and cooperate in preparing for adaptation to the impacts of climate change.

COP17 will run from 28 November to 9 December, 2011, during which between 20 000 and 40 000 people will descend on Durban's International Convention Centre, where negotiations will take place, and the Durban Exhibition Centre, which will serve as the UNFCCC exhibition space. Only accredited individuals, such as party delegates, observer organisations and media will have access to the UNFCCC precinct.

As host and COP President, South Africa will be responsible for convening and managing the event. It will have a significant role to play as one of the more influential parties to the COP, and will be under the international spotlight on domestic climate change-related issues. COP17 is being heralded as 'an African COP' that will address the specific challenges facing the continent and developing economies.

Civil society is able to engage with the climate change process through non-



Civil Society representatives are given a brief opportunity to address plenary

governmental observer organisations, who are accredited to the UNFCCC. WWF will be represented at COP17 by a team from its Global Climate and Energy Initiative (GCEI), led by WWF South Africa's Tasneem Essop.

*South Africa will be under the international spotlight on domestic climate change-related issues.*

In addition to participating in UNFCCC negotiation sessions throughout the year, giving input to country negotiating blocs' strategies and producing thematic policy position papers, this accredited team will work within the UN precinct at COP conducting text analysis, lobbying and participating in side events and media briefings. WWF will also be at the UN exhibition space.

While attendance at the COP itself will be restricted to accredited delegates and observer organisation representatives, the event will attract substantial interest from business, civil society and the public.

National government plans to host a National Climate Change Response Expo for civil society, business and government activities at the national, provincial and local levels.

It is within this space that WWF South Africa will have the opportunity to showcase its national work, including its engagement with government around national policy, lobbying and advocacy, civil society engagements and mobilisation, public awareness and communications efforts and partnership work.

WWF South Africa will showcase its Biodiversity work, including the BWI, SASSI and GreenChoice projects, together with its Green Growth South Africa project and ongoing streams of work linked to UNFCCC. These would include low carbon economy development work, renewable energy scale-up, business and stakeholder engagements, engaging with the National Climate Change Response Policy process and national positions to the UNFCCC.

**To find out more about WWF's climate change work please visit [www.wwf.org.za](http://www.wwf.org.za).**

# STAFF NEWS

## Caring for our coastline

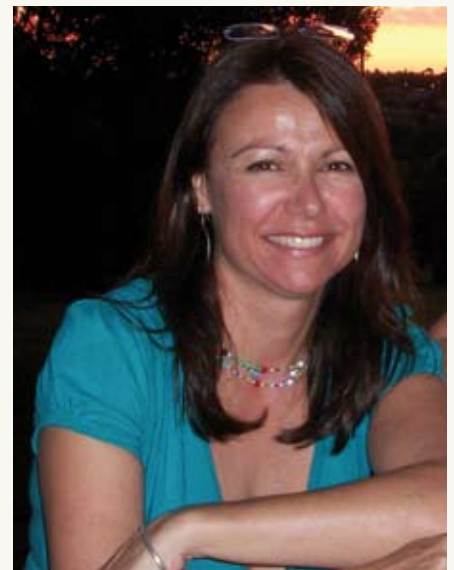
Eleanor Yeld Hutchings has been appointed as the Manager of the Coastal Conservation Partnership, False Bay, within the Honda Marine Parks Programme.

The partnership aims to develop a vision for False Bay and use this to unite partners from different backgrounds, to build and maintain coastal conservation capacity, to support and strengthen existing local conservation organizations and initiatives, and to improve collective conservation efforts through strategic and collaborative action.

"I'm excited to be able to be involved in this challenge and to be working for such an iconic institution that has the power to really affect change for the good of the environment."

Dr Hutchings has a PhD in marine biology from UCT and was a post-doctoral research fellow at the Iziko South African Museum. She is a qualified tour guide and

has managed a specialist marine biology tour company. More recently she has been the marine biologist presenter for the award winning SABC documentary series "Shoreline", and has presented for *National Geographic* as well.



## Wise about water

Christine Colvin joined WWF as Senior Manager of the Freshwater Programme at the beginning of June.

Prior to this, Christine worked at the CSIR for 16 years, initially as a hydrogeologist and finally as a senior researcher and a research group leader.

*"The most pressing challenges we face in establishing sustainable water use lie beyond just the science."*

Christine Colvin

"The most pressing challenges we face in establishing sustainable water use lie beyond just the science. I am very excited to have the opportunity to work for a world-renowned, credible and effective NGO and talk more directly to business, government and the public about our critical water issues. I look forward to the chance to not only generate new knowledge, but also to work with partners to define new and better ways of doing business with a smaller water impact".

## Welcome back, Dr Nel!

The former head of the WWF Sanlam Living Waters Partnership, Dr Deon Nel, officially returned to WWF in April to lead the organisation's new Biodiversity Unit.

"I am excited to be back at WWF. I have always lived by the principle of making the greatest difference I can for the environment that we live in, and at WWF I am well positioned to achieve just that," said Dr Nel.

Dr Nel previously headed WWF's Marine Programme and later the Sanlam Living Waters Partnership for the six years that he was with WWF. He left the organisation in 2009 to join the Council for Scientific and Industrial Research (CSIR) where he managed the Ecosystems and Water Competency Areas.

In his new role, Dr Nel will provide strategic guidance to WWF's five key biodiversity work areas, namely: freshwater, marine, sustainable agriculture, land and stewardship and the Table Mountain Fund.



*"I have always lived by the principle of making the greatest difference I can for the environment that we live in"*

Dr Deon Nel

## 1 Spot the difference

Can you find ten differences between these pictures of a leopard resting in a tree?



## 2 Who knows whose nose is whose?

Unscramble the words to find the animals that these different noses belong to.



1. LCBAK HIORN



2. OOBABN



3. HAETHEC



4. OLAFBUF



5. NOIL



6. GOHTRWA



7. AALPMI



8. EFFRGIA

## 3 Word code

Can you break the code and see what this sentence says?

XXG GPS B MJWJOH QMBOFU

CLUE: W = X; O = P

**HINT:** It's a good idea with word codes to write down the alphabet so you can check easily.



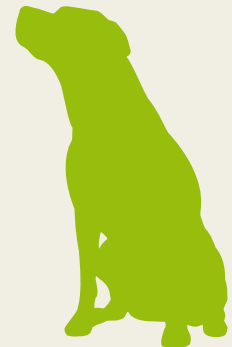
Answers on page 15

## Did you know?



1

Some researchers are starting to call wild dogs "painted wolves". That's because they believe the name "wild dog" makes people dislike the animals. "Painted wolf" sounds more beautiful and less fierce.



2

Smell is the most important sense to a dog. We humans have about 5 million scent receptors in our noses; dogs have about 220 million!

3

>100m

Every year hundreds of millions of plastic bags get thrown into the environment. They clog waterways, entangle birds and get swallowed by whales, sea turtles and other wildlife that cannot digest them. Many of these animals die because of the plastic they have eaten. Plastic is not biodegradable, so it doesn't break down and get reabsorbed by nature. Most of it ends up being washed into the sea and making great islands of plastic rubbish in the sea. Say no to unnecessary plastic bags! Use reusable bags instead.



# WWF South Africa

100%  
RECYCLED



>100

WWF works in over 100 countries throughout the world.

40 000

It is estimated that up to 40 000 people will attend COP17 in Durban later this year.



50 YEARS

2011 marks the 50th anniversary of the founding of WWF internationally. In South Africa, WWF was established in 1968.

5 MILLION

WWF has nearly 5 million supporters worldwide.



**Why we are here**

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

[www.wwf.org.za](http://www.wwf.org.za)