

SA government commits to protecting grasslands



Minister of Water & Environmental Affairs, Buyelwa Sonjica, together with eight MECs responsible for environmental affairs have signed the Grasslands Declaration committing government to the conservation of grasslands biodiversity.

The Declaration is an effort to collaborate in good faith to pursue biodiversity targets and objectives in securing and sustaining the ecosystem services of the grasslands biome. Among others, it commits government to take active measures to involve stakeholders in the management and conservation of biodiversity of grasslands.

The South African grasslands biome is the second-largest in South Africa, covering an area of 339 237 km². It occurs

in eight of the country's nine provinces. The grasslands biome is one of the most threatened biomes in South Africa, with 30% of grasslands irreversibly transformed and only 1,9% of the biodiversity target for the biome formally conserved.

According to Sonjica, grasslands sustain the economic heartland of South Africa by providing the bulk of its water. "Several of South Africa's priority river catchments occur in the grasslands biome, including the Thukela River catchment. Good management of South Africa's mountain grasslands will result in more water being released back into the river catchment system in the form of 12,8 m³ of water in winter river flows. In Rand value, this equates to between R18-million and R788,7-million per annum."

Biodiversity climbing the corporate agenda – study

Business leaders in biodiversity-rich developing economies are concerned about losses of natural capital, according to a new report.

Over 50% of CEOs surveyed in Latin America and 45% in Africa see declines in biodiversity as a challenge to business growth. In contrast, less than 20% of their counterparts in western Europe share such concerns.

The findings, compiled by a study of The Economics of Ecosystems and Biodiversity and backed by the United Nations, indicate that those corporate chiefs who fail to make sustainable management of

biodiversity part of their business plans may find themselves increasingly out of step with the market place. "We are entering an era where the multi-trillion dollar losses of natural and nature-based resources are starting to shape markets and consumer concerns," noted UNEP Executive Director Achim Steiner. "How companies respond to these risks, realities and opportunities will increasingly define their profitability; corporate profile in the marketplace and the overall development paradigm of the coming decades on a planet of six billion to over nine billion by 2050."

Nature NGO measures world's fine paper footprint

Global nature non-governmental organisation (NGO) WWF has launched a new voluntary rating tool for paper companies to report on their global ecological footprint.

Fine papers have everyday uses, including copier/printer paper, book paper, envelopes, forms, writing pads, high-quality magazines and brochures, catalogues and annual reports. The Paper Company Environmental Index assesses key environmental criteria, such as the use of recycled or fibre coming from well-managed forests, energy use and carbon dioxide emissions, water consumption and water pollution.

Five globally significant fine paper manufacturers, including Mondi Group from South Africa, have been the first to

voluntarily disclose their environmental profiles on WWF's new Paper Company Index.

"WWF applauds these companies for their leadership and transparency," said Harri Karjalainen, WWF's Pulp and Paper Programme Manager. "They are the vanguard of a more sustainable paper industry."

Other fine paper and tissue companies have been invited to follow suit, and show what they have done to reduce their global ecological footprint. "We hope this new online tool can promote some healthy competition within the paper industry as to who can achieve the lightest footprint," noted Karjalainen.

Results and profiles of the participating companies can be found at www.panda.org/PaperCompanyIndex.

Are protected areas harbouring invasive species?

Protected areas, long thought of as safe refuges for animals and plants, are under increasing threat from invasive alien species, which not only affect biodiversity but also people's livelihoods.

Protected areas can have huge social and economic value, particularly in Africa, where national parks are a major tourist attraction and a significant source of income. But according to the Global Invasive Species Programme, many managers of protected areas in Africa are not aware of the severity of the problem which is on their doorsteps nor how to address it.

"Habitat conservation is vital for stemming the decline in biodiversity and the establishment of protected areas is an important mechanism for achieving this aim," said Sarah Simons, Director of the Global Invasive Species Programme. "But, with invasive species rapidly invading our ever-increasing protected areas unchecked, we are in danger of exacerbating one of the greatest threats to our biodiversity."

A negligible amount of the funding spent on biodiversity conservation projects each year is devoted to invasive species, even though they are the second biggest threat to biodiversity globally, and in some

ecosystems, the biggest single threat to biodiversity. In Zambia, for example, the Giant Mimosa (*Mimosa pigra*), originally alien to Africa, has spread over 3 000 ha of prime habitat since being introduced to the Kafue floodplain in the 1980s, pushing out many large and important aquatic antelopes, water birds, reptiles, amphibians, fish, invertebrates and plants from their natural habitat.

Mesquite (*Prosopis juliflora*) is one of the most widespread dryland invasive species in north and east Africa having already invaded 500 000 and 700 000 ha in Kenya and Ethiopia respectively. Under ideal conditions, it has the ability to double its range every five years.

"We need to build invasive species monitoring and management into regular protected area management routines," maintained Geoffrey Howard, IUCN Global Invasive Species Coordinator. "Unfortunately, the vast majority of protected areas in Africa do not have the capacity or resources to recognise or identify invasive species. People are largely unaware of how damaging they can be and, more importantly, do not possess the necessary information and equipment to actually manage them."

Biodiversity protection can save nature and dollars

Liese Coulter/CSIRO



A more flexible approach to the expansion of protected area systems could ultimately protect much more biodiversity for the same budget.

This is according to a paper in scientific journal, *Nature*. Lead author Dr Richard Fuller of the University of Queensland, in Australia, said that without spending extra money “we could dramatically improve the performance of protected area systems by replacing a small number of poor performing areas with more cost-effective ones.”

Protected areas are one of the most important tools in modern nature conservation, with over 100 000 sites covering about 12% of the land and territorial waters of countries worldwide. The paper examines how effectively different sites can conserve a range of vegetation types.

“Replacing the least cost-effective 1% of Australia’s 6 990 strictly protected areas could more than double the number of vegetation types that have 15% or

more of their original extent protected,” Fuller noted. “We can do this if we reverse the protection status of the least cost-effective sites and use the resulting capital to establish and manage new protected areas.”

Fuller and his co-authors, including colleagues from CSIRO and the University of Queensland, acknowledge that community values would need to be incorporated when considering changes to the protected status of selected reserves. However, the benefits of reducing management costs in low performing areas are also worth exploring.

By being informed by this analysis method, future investments in protected areas could better protect biodiversity from threats such as climate change. “As the rate of investment in new protected areas has slowed globally in recent years ensuring the best places are protected is more important than ever.”

Water on the web

<http://dev.unep-wcmc.org/csn/default.html>

The critical site network (CSN) tool is a new online resource for the conservation of 294 species of water birds, and the important sites upon which they depend in Africa and Western Eurasia. Leading global conservation

organisations working for the protection of water birds and their habitats have joined forces to develop this tool, which makes it easy to obtain information on the sites critical for water bird species. It accesses several independent databases and analyses information at the biogeographical population level, so providing a comprehensive basis for management and decision making.

Shape-shifting fish adapts to changing river conditions

When rivers are impounded many aquatic species adapted to fast-flowing waters suddenly find themselves trapped in still reservoirs.

Scientists from Tulane University, in the US, have discovered one species of freshwater fish that morphs into a new shape in response to a lake-like environment.

Among the characteristics of the reservoir-dwelling *C. venusta*, commonly known as the blacktail shiner, are smaller heads, lower-set eyes, a shorter dorsal fin positioned closer to the head and deeper bodies.

“The public hears that dams do things like prevent salmon from migrating

upstream to spawn, or that some species are wiped out entirely within a stream when a dam goes in,” reports Travis Haas, lead author of the study and a PhD student in the Department of Ecology and Evolutionary Biology. “But this is an example of a species that remains in a stream that becomes a lake and changes in response to it.”

Haas studied the aquatic life in eight pairs of rivers and reservoir sites in the Mobile River Basin in Alabama. He found that the characteristics of shiners from reservoirs diverged consistently from those in rivers. This indicates that water impoundment – constructing dams – may be an evolutionary driver acting on aquatic biodiversity.

New conservation plans for endangered wetland bird

New conservation plans for the Siberian Crane (*Grus leucogeranus*) covering its entire range and migration routes that span continents have now been endorsed to save the species from extinction.

During its annual migration, the Siberian Crane travels 5 000 km from its breeding grounds in Yakutia and western Siberia, intermediate resting and feeding places, to its wintering sites in southern China and Iran respectively. During these extensive journeys along three migration routes, called flyways, they overcome considerable obstacles such as high mountains and vast deserts. Major threats like hunting in West and Central Asia and the drainage of critical wetlands in East Asia put them at even greater risk. Only 3 000 to 3 500 birds remain globally.

Now, under the new Siberian Crane Wetland Project, supported by UNEP’s

Global Environment Facility, government officials, scientists and conservationists are coming together to adopt strategies to reduce hunting, improve water management and mitigate the impact of climate change.

Among others, loss of wetland habitats is a major threat to the Siberian Crane. Water management for wetland areas is therefore crucial. Agriculture use, diversion of water resources and channels have resulted in severe shortages at the birds’ critical habitats. This mismanagement is enhanced by climate change, intensifying pressure on the species.

At present, plans are being prepared to improve water resource management at sites such as the Thanedar Wala Game Reserve and the Taunsa Barrage, both located in Pakistan and recognised for their importance for migratory water birds.

www.iwawaterwiki.org

The IWA (International Water Association) WaterWiki provides a platform for the global water community to interact and share knowledge online. The site aims to be a reference for all areas of water, wastewater and environmental science and management.

www.wmo.int/youth/

This is the youth Webpage of the World Meteorological Association. The site contains interesting information about the climate and weather as well as games, videos, a library and links to other weather-related sites.