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Northern Cape Vulnerability Assessment

By Rehana Dada

In the first week of March, the Northern Cape held its third provincial vulnerability assessment workshop in Kimberley. The event was attended by a large range of stakeholders, including national Department of Environmental Affairs, Northern Cape Department of Environment and Nature Conservation, representatives of a number of municipalities, and the various consultants who are responsible for the Northern Cape vulnerability assessment and the National Adaptation Strategy. The workshop was hosted by the Northern Cape Department of Environment and Nature Conservation, with David Khakhane acting as programme manager.



Alinah Mthembu of the Department of Environmental Affairs explained that the National Adaptation Strategy (NAS) is being developed according to the requirements for National Adaptation Plans as per the guidelines of the United Nations Framework Convention on Climate Change. The NAS is aimed at

ensuring that adaptation measures are integrated into all government planning, budgeting and development objectives. It seeks to form collaborative and joint action with all stakeholders, and include processes that are developed at provincial levels. Mthembu said: “The strategy is more of a mosaic. We are trying to put together different elements that have adaptation aspects within them, and from that develop a national strategy”. The key objectives of the NAS are to: “build climate resilience and adaptive capacity, provide leadership and guidance in terms of integration of climate change adaptation responses, and optimise and balance policy, planning and implementation”. Mthembu said that once the strategy is finalised, it will be put through gazetting processes, so that it will have formal legal status.



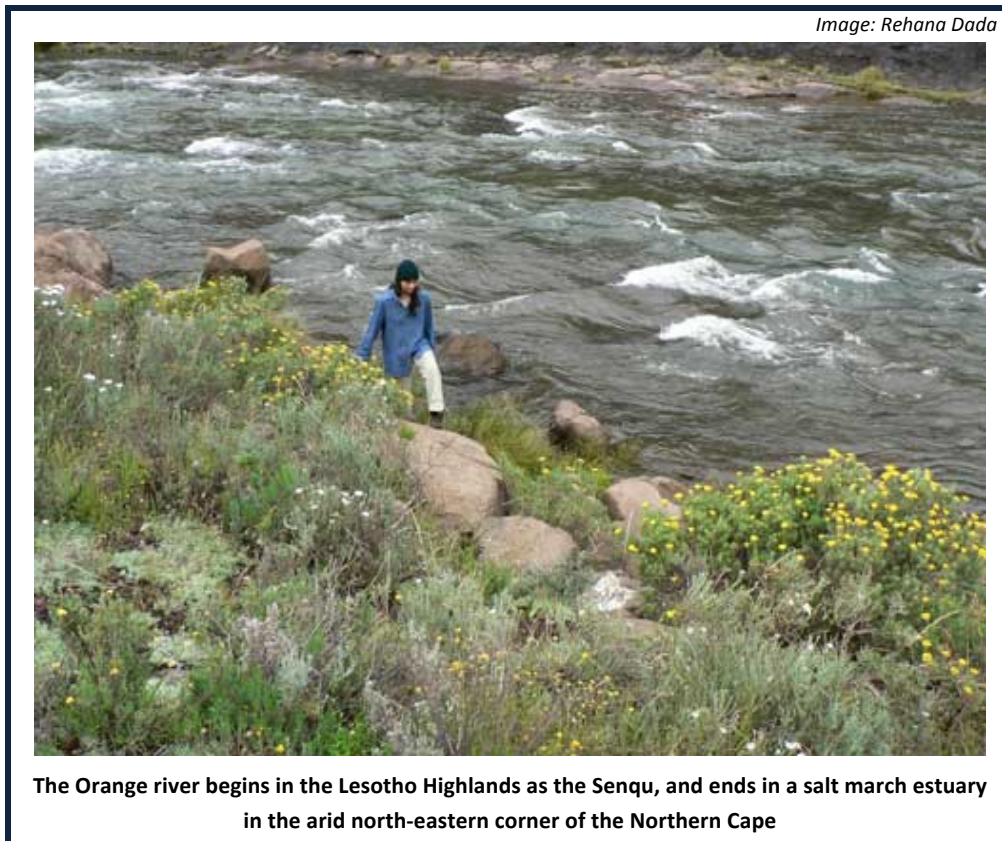
Dr Charity Mbileni of Envirotech Solutions which shares responsibility with KECES consultants for the development of the provincial adaptation strategy, explained the methodology used to develop the vulnerability assessment for the Northern Cape. Existing data sets were used, including data from the Long Term Adaptation Scenarios, Climate Systems Analysis Group, South African Census 2011, National Population Density Map, National Protected Areas Expansion Strategy, and various biodiversity reports. The assessment was restricted to vulnerabilities within provincial administrative boundaries.



Kgaugelo Chiloane of KECES said that the strategy needs to represent all sectors and stakeholders, and that there is a need for sound understanding of the long term impacts of mitigation measures on the environment. She asked participants to share the adaptation methods that they are currently using, as well as any new processes that they will be introducing into their work. The adaptation options that will be reflected in the final strategy will be informed by inputs from those who attend the provincial workshops or make input electronically.

One particular strategy shared was that of protecting traditional cattle breeds, and interbreeding them with more commercial stock to improve their resilience to drought conditions and other climate change related stresses that are projected. There was some debate about the use of genetically modified plants being used as an adaptation strategy, with one participant saying that it is an important strategy and another pointing out that breeding commercial plants with traditional varieties could be more effective for producing drought resistant crops and less risky for the environment.

Urban Earth was appointed to coordinate provincial input into the national process, and initial desktop assessments have been completed for all provinces. At the workshop, Urban Earth's Derek Morgan facilitated a participatory process where participants identified and discussed the critical climate change issues in the Northern Cape that needed to be included in the NAS.



Water management emerged as a critical issue, both in terms of efficient use within the province and, more critically, in terms of addressing upstream pollution of the Northern Cape's water resources. Coal and gold mining, power stations, and raw sewage entering rivers in other provinces impacts significantly on the quality of water in the rivers that flow into and through the Northern Cape. Protection and sustainable use of wetlands, particularly seasonal wetlands that may not always be recognised as water resources, was raised as an important matter. Discussion about the Orange River in particular was intense, as participants pointed out that the river not only flows through five provinces, but is also influenced by activities in four countries. This is just one example of why regional and international collaboration in climate change adaptation and water resource management is important.

Other issues raised during the process included:

- The need for flexibility in implementing adaptation processes to allow for learning from implementation, mistakes and successes; this includes flexibility from donors;
- Adaptation processes need to be driven from community level, and this implies that capacity building processes are critical aspects of adaptation planning and implementation;
- There is a need for a better understanding of how climate change affects biodiversity in the Northern Cape.

One participant raised the point that the process of developing a provincial adaptation strategy should have started at grassroots level, because that is where the traditional knowledge lies: “this is something we need to look at otherwise we are going to lose some very important information and processes”. A particular concern raised by one participant was that coastal communities in the Northern Cape do not seem to have a presence at the provincial workshops. Others raised the issue that many municipalities, even those who are aware of the process, do not have the capacity or budget to consult with their constituencies or even to attend the provincial workshops.

Those managing the process have made it possible for all interested parties to engage electronically should they wish to do so. The next workshop is scheduled for mid April, date and venue to be confirmed.

For more information please email Leigh-Anne Groenewald at leighannegroenewald@yahoo.com

Ecosystem-based Adaptation framework for South Africa

By Candice Arendse

Ecosystem services contribute greatly to socio economic and environmental wellbeing, providing benefits such as reliable supplies of potable water, clean and oxygenated air, grazing for livestock, and fertile soils for producing the food that we eat. However, the impacts of climate change coupled with direct human interference on natural systems threaten the ability of ecosystems to provide important services, and thus increase our vulnerability to climate change. With this in mind, it has become critical for governments to plan for Ecosystem-based Adaptation (EbA), in order to maintain ecosystem benefits such as the regulation of water quality and quantity, and decreasing the effects of extreme weather events.

South Africa has identified the biodiversity sector as one of the priorities of climate change adaptation planning in its National Climate Change Response strategy. The country has therefore developed Climate Change Adaptation Plans for nine South African biomes, a process that was led by the Department of Environmental Affairs (DEA). The Plans include components that focus on the development of an EbA Framework and Implementation Plan for the country.

DEA, in collaboration with the South African National Biodiversity Institute (SANBI) hosted a one day stakeholder workshop on 11 February 2016 at the Pretoria Botanical Gardens, with the intention of developing a Strategic Framework and Implementation Plan for EbA in South Africa. More than 40 participants attended the workshop, including representatives from local and national government and institutes such as the University of Witwatersrand, Water Research Commission, and WWF.

Presentations provided a theoretical background on EbA, and included practical project examples from the Adaptation Fund Project, *Building Resilience in the Greater uMngeni Catchment*. Speakers included Anthea Stevens and Mandy Barnett of SANBI and Ntando Mkhize of DEA.

The greater part of the workshop was spent on group work to refine and deepen the framework. The process focussed on five components that addressed critical aspects of the new EbA plan:

1. Conceptual clarity
2. Case studies or pilots
3. Learning, research, monitoring and evaluation (this was called ‘Know more’)
4. Mainstreaming EbA
5. Coordination of plans and procedures.

Each working group focussed on ideas and recommendations for the development of each component, based on participants' practical experience and working knowledge. The working groups created a platform that enabled expression of diverse views and logical engagement, with input made in a rotation form whereby groups of participants were able to give input into each of the components.

Image: Candice Arendse



Sarshen Scorgie of Conservation South Africa noted that although all of the components discussed during the workshop were important, it is vital to focus on demonstrating EbA in the development of a framework, and therefore the focus should be on the second component. This working group discussed options for pilots including integrating hard infrastructure and considering all of South Africa's biomes, climatic spectrums and sectors. Disaster risk reduction options were also discussed. Scorgie said that a cost benefit analysis of the pilots will enable planners to identify which areas of the EbA should be scaled up or replicated.

A draft of the Framework that was developed from the inputs obtained during the workshop is due to be circulated for comment during March. Stakeholders will kept up to date on the progress of the plan.

Gauteng Provincial Climate Change Forum

By Rina Taviv and Mathabo Phoka

Climate change is an inter-disciplinary and cross-cutting issue, which requires multi-disciplinary action from all stakeholders across different spheres of government - national, provincial and local government, industry and civil society, the education and training sector, research organisations and communities in order to address it.

In an attempt to deal with some of the issues of climate change in a practical and comprehensive manner, the Gauteng Department of Agriculture and Rural Development (GDARD) established the Gauteng Climate Change Forum (GCC Forum), which was launched in Pretoria in June 2015 with the support of the City of Tshwane. GDARD acts as its secretariat, and is also seeking to lead and support larger joint projects within Gauteng.

The main purpose of the GCC Forum is to create a platform for coordination between different spheres of government and various stakeholders to ensure that climate change issues are mainstreamed into our daily socio-economic activities. Furthermore, the GCC Forum aims to share information on climate change related policies and measures, and share knowledge and build capacity to address and cope with climate change. Its recent work includes supporting provincial data collection for the national database of climate change projects through hosting an ICLEI (International Council for Local Environmental Initiatives) workshop in August 2015. It reports its activities at National Climate Change Committee meetings, the most recent being on 3 March 2016.

The GCC Forum also supported national initiatives in the past by hosting a provincial dialogue on the Intended Nationally Determined Contributions (INDCs) in August 2015. Addressing over a hundred people who attended the event, Gauteng MEC for Economic Development, Agriculture and Rural Development, Lebogang Maile, said that our efforts towards mitigating and adapting to climate change impacts should not ignore the need to address the climate change challenges faced by poor and historically disadvantaged communities. These include rural communities and townships.

The INDCs are voluntary, self-determined short, medium and long term targets that are set by each country to contribute to putting the world onto a safe path towards a low-carbon, climate-resilient future. However, it was demonstrated that current mitigation INDCs are inadequate, which means that adaptation efforts need to be intensified and fast-tracked.

The Gauteng provincial government is coordinating its work through the GCC Forum. Meetings are held quarterly, with the most recent being on 12th February 2016 in Johannesburg. The meeting was attended by representatives of national and provincial government and local municipalities, including Ekurhuleni Metropolitan Municipality, City of Tshwane Metropolitan Municipality, City of Johannesburg Metropolitan Municipality and Mogale City Local Municipality. A number of non-governmental organisations and private stakeholders, including Urban Earth, Medical Research Council, Green Buildings Council SA (GBC-SA), GIZ and academic institutions attended the Forum.

Image: Courtesy Rina Taviv and Mathabo Phoka



Participants of the February meeting of the GCC Forum

Several presentations were made at the meeting that were aimed at paving the way towards a common approach to address climate change related challenges. The National Treasury Department presented on the Draft Carbon Bill, highlighting some of the climate change related work that Treasury is undertaking. GBC-SA presented their work to build greener buildings that can help reduce the effects of climate change and also reduce the contribution of buildings to climate change. GIZ presented on their waste management flagship programme, focusing specifically on the diversion of municipal solid waste away from landfills in six municipalities. The Medical Research Council shared information about a research project they had recently undertaken to monitor the impacts of climate change on health. Urban Earth gave a brief presentation on their approach to develop a National Climate Change Adaptation Strategy. Representatives from the various provincial departments and municipalities discussed the measures being taken by their organisations to address climate change challenges.

The vastly different climate change discussion topics illustrate how climate change issues are interdisciplinary and crosscutting. Therefore, it is very important to have a platform such as the GCC Forum in order to share information and learn from what others are doing. The Forum makes it easier for people from different fields, who share a common goal of combating climate change, to come together and share ideas and knowledge on climate change.

Since its launch, the GCC Forum has adopted the Gauteng Provincial Climate Change Forum Terms of Reference, which describes the purpose and structure of the Forum, as well as its aims and objectives. It also provides a list of stakeholders who can participate in the Forum, and the roles and responsibilities of the major stakeholders.

All information about the GCC Forum, presentations and documents of all meetings, and pertinent provincial policies and strategies can be accessed from the Gauteng Climate Change Information portal: <http://www.gdard.gpg.gov.za/gchip/Pages/Forum.aspx>

Opinion: Double trouble for Nepal

By Navin Singh Khadka, for the Kathmandu post

Two significant scientific reports were released in January that should worry Nepal, even if it is already besieged by the fuel and political crises. The first was about the impact of humans on the earth that has entered the planet into a new epoch, the Anthropocene, because of human activities. The second study was about how humankind has changed the natural cycle, saying that global warming has postponed the beginning of the ice age by at least 100,000 years.

The second study was more widely reported because it had the rare angle that the rise in global temperature actually had something positive to offer. Scientists say the shape of the earth's orbit around the sun puts it in just the right place for the next ice age. The last one ended some 12,000 years ago. But the massive amount of carbon dioxide pumped into the atmosphere by human activities since the industrial era began, has warmed the earth significantly, postponing the recurrence of the ice age. This may come as a respite for the global population because invasion of cold is also a survival issue, especially the poor.

But there are some things to consider.

If global warming could upset the natural cycles of ice and warm ages, what it may have already done to climatic systems could be more scary than we can imagine. This is where both these scientific studies become so important for poor and vulnerable societies. They may not be able to engage so much with the academic aspects of those reports but they indeed need to deal with the practical implications of what the reports reveal as it is them who will bear the brunt of any form climate change. So the question is around whether there is adequate planning and preparation for change.

The climate plan that member every country of the United Nations Framework Convention on Climate Change is required to prepare can be one key part of such planning and preparation. The Intended Nationally Determined Contributions (INDC) were submitted by most member countries before the Paris summit last December, with heavy focus on mitigation. Nepal, however, was not one of those countries, and is only now preparing its submission. Better late than never. But the main objective of the INDC seems to be to ensure that countries commit to emissions cuts. Nepal's contribution to global greenhouse gas emissions is less than 0,1 per cent. According to Climate Action Tracker, an independent assessment that tracks nations' emission commitments and actions, Nepal's greenhouse gas emissions are expected to increase by 62 per cent by 2030 compared to 2010 levels. Still, that would be a very negligible contribution to the global total figure.

This means that Nepal should be less concerned about reducing its contribution to climate change and more worried about how to deal with the impacts of climatic change. This is the same story with many poor and vulnerable countries that have been required to submit mitigation INDCs, while what matters more to them is whether they have the right adaptation plans and the funds to implement those plans.

This has been a gigantic gap in the run up to the Paris summit and subsequently. The whole focus, at least in theory, has been on emission cuts, while scientists have been warning that even if all emissions were to stop today, climatic changes to a certain extent are inevitable, given that so much carbon has already been dumped into the atmosphere and absorbed by the oceans.

But one can argue that there have been many adaptation plans: The National Adaptation Programmes of Action (NAPAs), Local Adaptation Programmes of Action, and now the National Adaptation Plans. And one can also point at the provision of the Least Developed Countries Fund that poor countries were able to secure in the Paris Agreement. And if all these are not enough, wait and watch how many schemes and projects will be rolled out under the freshly unveiled Sustainable Development Goals of the United Nations.

But what are these projects' track records? An investigation for the BBC in 2014 showed that only around 50 of the over 500 projects under NAPAs for least developed countries, including Nepal, were genuinely implemented. In the meantime, several other donor-funded climate projects were found to be duplicating themselves in Nepal. What happened to them? Did they reach the grassroots communities they were supposedly targeting? Has there been any review of such projects? All these questions are crucial because donors such as the World Bank, Asian Development Bank, and Global Environment Facility, among others, have announced new climate related programmes. They are all welcome, but please first tell us what happened to the past projects.

If the donors fail to explain, Parliament needs to step in and start interrogating government officials, many of whom never tire of singing hosannahs for such projects and their donors. Some quarters have tried to blur the lines, arguing that many of these projects were meant to be dovetailed with development projects, and that is what is happening.

"Climate proofing" development projects may be open for the components of these projects but nothing can be more important than the urgent needs of vulnerable communities. The two scientific reports we started this piece referring to are directly related to these populations. In addition, Nepal's location between two top global emitters, China and India, means it needs to prepare for even higher environmental consequences.

For Nepal, it will be double trouble: global climatic changes and regional environmental challenges.

Article first published in Kathmandu Post: <http://kathmandupost.ekantipur.com>

News and Events

National Adaptation Strategy Inception Workshop

The Department of Environmental Affairs is holding an inception workshop for the National Adaptation Strategy on 31 March 2016. The intention of the workshop is to provide an overview of the process and time lines, and discuss the framing of the national, provincial and local government and cities processes. The meeting will be held in Gauteng, venue to be confirmed. The Technical Working Group on Adaptation will meet the day before (30 March 2016), also in Gauteng. The workshop is an opportunity for all interested parties to provide their input into the process. The National Adaptation Strategy acts as a National Adaptation Plan in the context of reporting to the United Nations Framework Convention on Climate Change.

For more information please email Alinah Mthembu at amthembu@environment.gov.za

International call for justice for the murder of Honduran environmental activist

On March 3rd, Honduran environmental activist, Berta Cáceres, was assassinated in her home town. She had been repeatedly threatened for her opposition to the Agua Zarca Dam on the Gualcarque river. The dam is expected to significantly reduce local communities' access to food and water. Cáceres was coordinator of the National Council of Popular and Indigenous Organisations of Honduras, and the 2015 recipient of the Goldman Environmental Prize. Organisations around the world have called for justice on her behalf, including World Rainforest Movement, Friends of the Earth and Climate Action Network. World Rainforest Movement has also called for the protection of Gustavo Castro who was wounded at the time of Cáceres's murder and is now being detained by Honduran authorities.

Image: Courtesy of the Goldman Environmental Prize



Berta Cáceres, at an action with the communities she worked for

Carole Excell of the World Resources Institute writes that Cáceres's murder "underscores the need for environmental democracy", and points out that this is only one of very many recent attacks on environmental activists. According to Excell, 116 environmental activists were murdered in 2014.

Green Climate Fund Board Meeting in Korea

Climate Finance Advisory Service (CFAS) reports that the 12th Green Climate Fund (GCF) board meeting, which was held in Songdo last week, focused on “addressing and closing” policy gaps. The GCF intends to distribute USD 2,5 billion by the end of this year, following its first approvals of proposals last November. The USA reported that the first USD 500 million tranche of their USD 3 billion pledge has been signed. A Budget Committee was established whose role is to review and make recommendations to the board on administration of the budget. Its first task was to develop options for an increase in staffing, with a decision taken at the end of the meeting to increase staffing to 100 positions by the end of 2016 and 140 by the end of 2017. The administrative budget will increase to USD 35,8 million. Another key matter for discussion at this meeting was the appointment of a new executive director to take position from September.

During the meeting the GCF Board accredited 13 new entities: Agency for Agricultural Development of Morocco(ADA), Ministry of Finance and Economic Cooperation of Ethiopia (MOFEC), National Environment Management Authority of Kenya (NEMA), Development Bank of Southern Africa (DBSA), Crédit Agricole Corporate and Investment Bank, HSBC, African Development Bank (AfDB), European Investment Bank (EIB), International Finance Corporation (IFC), Unidad Para el Cambio Rural Argentina (Unit for Rural Change, UCAR), International Union for Conservation of Nature (IUCN), World Food Programme (WFP) and World Meteorological Organization (WMO).

Crédit Agricole HSBC received accreditation despite a concerted opposition campaign by international organisations. CFAS reports that “several board members referenced the criticism civil society groups had raised” regarding accreditation of Crédit Agricole and HSBC, with particular concerns regarding HSBC’s compliance with anti money laundering standards. Some board members considered that through engaging with large financial institutions, the GCF “could reinforce a shift in their portfolio towards compatibility with the Fund’s objectives”.

A Strategic Plan for the GCF was adopted, and the Secretariat was requested to implement it. Some board members stressed the importance of addressing additional issues raised during discussion, and that the plan should be considered a living document that can be revised.

Contact CFAS at cfas@germanwatch.org

Reflections on COP21

Director of the African Climate and Development Initiative, Mark New, presents his reflections on COP21 in a video. He says that the COP21 agreement shows new ambitions in responding to climate change, especially for developing countries, but there are still major ambition gaps. In the video he comments on what COP21 means for developing states and particularly South Africa, as well as on the ambition gaps that will require greater focus in order to be adequately closed.

The video is available at: <http://uct.us8.list-manage.com/track/click?u=4c039247ad2f92d6e7fcef312&id=e54ae88d7b&e=3408f1bbb2>

Global Platform for Sustainable Cities launched in Singapore

Last week city leaders from around the world met in Singapore to launch the *Global Platform for Sustainable Cities (GPSC)*, which is intending to mobilise USD 1,5 billion to address sustainability in cities, particularly the impacts of climate change. The initiative is funded by the Global Environment Facility and will be implemented by the World Bank in partnership with the African Development Bank, Asian Development Bank, Development Bank of South Africa, Inter-American Development Bank, United Nations Environment Programme, United Nations Development Programme, and United Nations

Industrial Development Organization. GPSC is the foundation of a larger initiative to create a network of cities that will act as leaders in urban sustainability planning. Initially, 23 cities in 11 countries will be part of the initiative, and its outputs will include research, workshops and online data.

Ice sheets more vulnerable to carbon dioxide than previously thought

Research by the University of Massachusetts, Pennsylvania State University and GNS Science, New Zealand, show that large changes in the Antarctic ice sheet are possible at even lower levels of atmospheric carbon dioxide than previously thought. The researchers say that this does not imply an immediate rise in sea levels, but it does show that the Antarctic ice sheet is more vulnerable than models have previously shown. The models used in this research include three new strategies that improve simulation, in particular a component that better captures feedbacks between the ice sheet and climate. The results were obtained from reconstruction of how Antarctica's ice sheets responded during the mid Miocene, when atmospheric carbon dioxide levels were the same as that expected in about 30 years from now, as well as sediment core findings. The results are published in two companion papers in the *Proceedings of the National Academy of Sciences*.

Climate change related food insecurity could result in over half a million additional deaths in 2050

A study published in *The Lancet* shows that changes in diets and bodyweight as a result of reduced crop productivity could result in over half a million additional deaths in 2050. The results are based on modelling conducted by the Oxford Martin Programme on the Future of Food at the University of Oxford. Low and middle income countries are likely to be worst affected, particularly countries in the Western Pacific and Southeast Asia, with almost three quarters of climate related deaths expected to occur in China and India. Greece and Italy are also significantly affected on a per capita basis. The problem is not only reduced food availability, but also a change in the type of food that is available; for example reduced availability of fruits and vegetables can increase incidences of heart disease, stroke and cancer. The researchers say that cutting emissions could reduce the number of climate related deaths by between 29 and 71 per cent, depending on the effectiveness of mitigation. The authors say that adaptation efforts are needed that involve public health programmes aimed at preventing and treating diet and weight related risk factors such as increasing fruit and vegetable consumption.

Credits

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