**Contents**

South African Adaptation Network welcomes new Coordinator  
*By Noel Oettle (Secretariat)*

Will there be more rain this winter?  
*By Peter Johnston and Piotr Wolkski*

First Thematic Assessment of Land Degradation and Restoration  
*By Noel Oettle*

Boosting Climate-Smart Enterprise Solutions: SEED South Africa Symposium 2018 13-14th March  
*By Felix Donkor*

Reflections on the Extended National Climate Change Committee (NCCC) Workshop  
*By Dania Petrik*

Call for advancement of work in adaptation and resilience at 2nd Global Adaptation Network Forum  
*By Dania Petrik*

ACDI Institute Launch: "One Big Idea" Panel Discussion  
*By Dania Petrik*

Second Edition of the South African Risk & Vulnerability Atlas (SARVA) launches, alongside an online tool  

Save the date: Adaptation Futures conference (18-21 June 2018)

---

**South African Adaptation Network welcomes new Coordinator**

*By Noel Oettle (Secretariat)*

The South African Adaptation Network is pleased to announce that Dania Petrik was recently appointed by EMG to the position of Adaptation Network Coordinator. She holds an Honours degree in Marketing and an MPhil in Energy & Development Studies from the Energy Research Centre, UCT.

Dania has worked in the private sector and as a freelance consultant in the field of climate and development for the past four years. Prior to completing her masters, she worked in marketing and events in the energy and development sectors. She brings excellent communications skills to the Network, and with her input we aim to improve the communication and other services to the membership, and beyond. This follows the guidance given by the Network’s 2017 Annual General Meeting (AGM).

Dania loves the outdoors and is an avid hiker. Network members who would like to enjoy walking in the Cape mountains can approach her for advice (or find her trail reviews online at [www.hikingsouthafrica.co.za](http://www.hikingsouthafrica.co.za))!
We are delighted to have Dania on the team. Over the coming months you will have the opportunity to interact with her at meetings and workshops, or virtually. You can reach her at the office on 021 448 2881 or via email at dania@emg.org.za.

Will there be more rain this winter?

By Peter Johnston and Piotr Wolski

The approaching autumn and winter season in Cape Town is being keenly awaited to see if it will bring sufficient rain to end, or at least alleviate, the drought. If the rains are above average, the city should be able to avoid Day Zero next year. But if they’re below average, it will be very hard to do so.

No seasonal forecasts have sufficient skill to predict the likelihood of an above normal / normal / below normal rainfall season. This makes it difficult to plan for the near future. For example, should water restrictions be made stricter or relaxed?

We have observed that in the past, many of the years that had the lowest overall annual rainfall were the same years that recorded low rainfall during the months before the start of winter. So we wondered if this was a statistically valid predictor for the approaching winter rainfall totals. In other words, we had a suspicion that if there is above average rainfall up to the end of, for example, April, then there could be a better chance that by the end of winter, the rainfall total will also be above average. The opposite could be also be true: if the rainfall until the end of April is below normal, the total rainfall may likely be lower than normal.

This could result from two processes. Firstly, there could be an underlying climate factor that causes lower (or higher) rainfall, and that persists throughout seasons. In this way, the amount of rainfall in the beginning of the rainy season is an indicator of the amount of rainfall the rest of the season receives. This might appear surprising at first sight; as it would mean that the weather in winter is dependent on the weather preceding it. But such dependencies are not unexpected. In fact, we may expect similar persistences to last a year or even longer. That influence might be minimal, but it could still help with predictions.

Secondly, we are looking here at the accumulated rainfall figures. This means that when we are attempting, in April, to predict total amount of rainfall that falls between January and the end of December, the known rainfall till the end of April contributes some proportion of the figure we are trying to predict. But there are still eight months of rainy season left, and so a lot can change. If we were to make our prediction in October, there would be only two months of (relatively low) rainfall left that could change our prediction. So, that prediction would not be very likely to change.

To understand how we know this, we need to explain a few things first.

Firstly, we need to understand what we mean by above average, below average and normal rainfall. Above average means the wettest one third of all the years. Below average means the driest one third of the years. Normal is all the years in-between. This is illustrated in the graph below, which shows average rainfall data for three weather stations — Nuweberg, Vrugbar, and Rustfontein — in the Western Cape dam catchment area from 1930 to 2017.

![Graph showing total annual rainfall in WCWSS dam region](image)
Let’s assess our suspicion that, based on the rainfall total at the beginning of the rainy season, we can tell how much rainfall the entire rainy season will receive. In the figure below, each of the lines corresponds to one year in the 1930 to 2017 period and shows the amount of rainfall as it accumulates during that year. The lines cross each other, and one can easily find years where rainfall total was relatively low in April/May, but relatively high towards the end of the year, and vice versa.

This is better illustrated in the figure below. Here, we divided the January to April total into the three categories defined earlier, and tracked how rainfall progressed in the succeeding months.

It is clear that whether the season turns out to be wet, dry or average is, to a certain extent, determined by whether it was wet, dry or average in April. From this, we can determine what the probability is of the whole year ending up wet, when it was wet in April. This we do by simply counting how many of the years classified as above average in April, turned out to be above average in December.

There are 88 years, 28 of which (one third) are classified as above average (wet) in April. If, for example, 17 of these turned out to be above average in December, there would be a 60% probability (17/28x100) that a year that is wet until April will be wet until December. Likewise, if in May, 20 of the 28 below average (dry) years end up still being below average in December, then the probability of a dry year in May still being dry in December is 71% (20/28x100).
So finally, we can present our probabilistic forecast. We calculated probabilities for forecasts issued at the end of each month but considered only the total till the end of October rather than till the end of December. This is because the rain until the end of October is the main determinant of the end-of-season storage in the Western Cape Water Supply System (WCWSS) dams, and therefore most of the water that will be available to Cape Town.

We can make a couple of observations from the figure below.

Firstly, as we progress through the year, the probabilities of staying in the same regime (wet, dry or normal) increase, while probabilities of changing regime reduce. If we make a forecast for the season in August, there aren’t many months left to change the amount of rain in that season. But if we consider the situation in February, there is still plenty of time for the season to develop differently.

Secondly, we can see that the probabilities change slowly, but at a certain point, one of the three options starts clearly to dominate. In other words, at a certain time, rainfall seems to be “locked” into a particular regime.

For example, from the graphs, we are locked into a wet year when cumulative rainfall recorded by the end of April is above average. At the blue circle, the probability is 5% for below normal rainfall for the whole season, 30% for normal and 65% for above normal. However, we are locked into a normal year only in July/August (green circle; 25% for below normal, 50% for normal and 25% for above normal). Likewise, we can say with some confidence that the year is going to be dry, at the end of May (red circle; 60% for below normal, 35% for normal, and 5% for above normal). These remain probabilities, but they are a useful guide for how we prepare for summer 2019.

So where are we now? From the graph below, we can see that 2018 (January and February) is well below normal for the year so far, but from the probability figure above, at the end of February, there are equal chances of below normal, and normal rain by the end of the year (Yellow circle). So it’s too soon to say how the year’s rainfall will turn out.
Accumulated daily rainfall at Cape Town Airport (1978-2018) [Source: CSAG, UCT]

In a nutshell, this is what we have found:

- At the end of April, if we are above normal, it’s likely we’ll have above normal rainfall by year end.
- At the end of May, if we are below normal, it’s likely we’ll have below normal rainfall by year end.
- At the end of July, if we are in the normal range, it’s likely we’ll have normal rainfall by year end.

Let’s keep watching the accumulated rainfall after each month. It could soon provide us with some answers about the likely seasonal total, and help government, farms, and Western Cape urban residents make decisions about what to do for 2019.

The authors are both researchers with UCT’s Climate System Analysis Group. This analysis was inspired by an idea by Emeritus Professor Len Handler.

Original Link: https://www.groundup.org.za/article/will-there-be-more-rain-winter/

First Thematic Assessment of Land Degradation and Restoration

By Noel Oettle

Whether we work in government or academia, or are field-based practitioners, we have all been exposed to the stifling effects of “silo” thinking and acting. Even though overwhelming evidence shows the fundamental interdependences between biodiversity, land and the climate, so much action and science addresses only isolated parts of the puzzle. It is thus heartening to know that the first ever comprehensive assessment of land degradation and restoration was recently tabled at the meeting of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) held in March in Medellín, Colombia.

Land degradation is a global scourge, impacting negatively on people’s ability to feed themselves at a global level. The destruction of the land and the biodiversity that it supports also impacts on the cultural identity of what are described as ‘Indigenous Peoples and Local Communities’ (IPLCs). Land degradation is a major contributor to climate change, and climate change can also exacerbate the impacts of land degradation.

Sustainable Development Goal 15 is to “Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation...
and halt biodiversity loss”, and one of the targets agreed to in this context is “by 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world”. While the concept of ‘land degradation neutrality’ is admirable, there is much debate about what the term actually means especially as regards life on and in soils. This debate prompted IPBES to focus its attention on the question.

Left: South Africa’s Professor Robert ‘Bob’ Scholes (who served as the Co-Chair of the IPBES assessment) argued that distinguishing between “natural” and “transformed” ecosystems implies the use of different biodiversity baselines. Societies transform ecosystems so that they will provide specific ecosystem services, such as food production, which may lead to a loss of other services, such as water storage.

The main drivers of biodiversity loss include unsustainable agriculture and forestry, construction of infrastructure, mining and extraction, urban expansion and climate change.

The benefits of halting land degradation and investing in restoration to ‘avoid, reduce, and reverse’ land degradation include increasing food and water security, contributing to the adaptation and mitigation of climate change and reducing the chance of conflict and migration.

Rehabilitating a gully on the Avontuur property, Nieuwoudtville [Source: Noel Oettle]

The key findings of the IPBES Thematic Assessment of Land Degradation and Restoration are summarised in a set of key messages for policy makers:

1. Land degradation is a pervasive, systemic phenomenon: it occurs in all parts of the terrestrial world and can take many forms. Combating land degradation and restoring degraded land is an urgent priority to protect the biodiversity and ecosystem services vital to all life on Earth and to ensure human well-being.

Currently, degradation of the Earth’s land surface through human activities is negatively impacting the well-being of at least 3.2 billion people, pushing the planet towards a sixth mass species extinction, and costing more than 10% of the annual global gross domestic product in loss of biodiversity and ecosystem services.
Investing in avoiding land degradation and the restoration of degraded land makes sound economic sense as the benefits generally by far exceed the cost.

Animimas establishing on a degraded surface [Source: Noel Oettle]

Timely action to avoid, reduce, and reverse land degradation can increase food and water security, can contribute substantially to the adaptation and mitigation of climate change, and could contribute to the avoidance of conflict and migration.

2. Unless urgent and concerted action is taken, land degradation will worsen in the face of population growth, unprecedented consumption, an increasingly globalized economy, and climate change.

Widespread lack of awareness of land degradation is a major barrier to action.

High consumption lifestyles in more developed economies, combined with rising consumption in developing and emerging economies, are the dominant factors driving land degradation globally.

The full impact of consumption choices on land degradation worldwide is not often visible due to the distances that can separate many consumers and producers.

Institutional, policy, and governance responses to address land degradation are often reactive and fragmented and fail to address the ultimate causes of degradation.

Land degradation is a major contributor to climate change, while climate change can exacerbate the impacts of land degradation and reduce the viability of some options for avoiding, reducing, and reversing land degradation.

Rapid expansion and unsustainable management of croplands and grazing lands is the most extensive global direct driver of land degradation.

3. The implementation of known, proven actions to combat land degradation and thereby transform the lives of millions of people across the planet will become more difficult and costly over time. An urgent step change in effort is needed to prevent irreversible land degradation and accelerate the implementation of restoration measures.

Existing multilateral environmental agreements provide a platform of unprecedented scope and ambition for action to avoid and reduce land degradation and promote restoration.

More relevant, credible, and accessible information is needed to allow decision makers, land managers, and purchasers of goods to improve the long-term stewardship of land and sustainability of natural resource use.

Coordinated policy agendas that simultaneously encourage more sustainable production and consumption practices of land-based commodities are required to avoid, reduce, and reverse land degradation.
Eliminating perverse incentives that promote degradation and devising positive incentives that reward the adoption of sustainable land management practices are required to avoid, reduce, and reverse land degradation.

Landscape-wide approaches that integrate the development of agricultural, forest, energy, water, and infrastructure agendas, all informed by the best available knowledge and experience, are required to avoid, reduce, and reverse land degradation.

Responses to reduce environmental impacts of urbanization not only address the problems associated with urban land degradation but can also significantly improve quality of life, while simultaneously contributing to climate change mitigation and adaptation.

Note: The Summary for Policy Makers (SPM) of the IPBES thematic assessment report on land degradation and restoration is annexed to document IPBES/6/L.9/Rev.1 and the assessment chapters are contained in IPBES/6/INF/1. See more at https://www.cbd.int/

Boosting Climate-Smart Enterprise Solutions: SEED South Africa Symposium 2018 13-14th March 2018

By Felix Donkor

The palpable impacts of climate change have made the search for alternate pathways to a low-carbon economy urgent. Moreover, the low-carbon economy provides a viable means of enhancing the well-being of a projected nine billion people by 2030 and achieving the Sustainable Development Goals (SDGs).

SEED South Africa, as part of its goal of developing a dynamic community of practice centred on social and environmental entrepreneurs, organised the SEED South Africa Symposium 2018 at the Capital Menlyn Hotel, Pretoria. The two-day event (13-14th March), assembled approximately 150 enterprises, financial institutions, policy makers and business development service providers from several countries to foreground interventions and partnerships that harnesses the potential of climate-smart enterprises to maximise their reach and social impact.

The opening remarks were given by Geraldine Reymenants (The Government of Flanders), Alf Wills (Department of Environmental Affairs), Najy Benhassine (World Bank Group) and Rainer Agster (SEED). They highlighted the escalating incidence of unemployment, poverty and inequality and the impact of climate change as a variable for sustainable development with the capacity to reverse development gains.

Furthermore, they pointed to the need to shift focus from mitigation to adaptation and create a national green fund to support the green economy transition. Mr Najy Benhassine alluded to the urgency of climate change and suggested that the World Bank Group will be allocating 20% of its funding to climate related projects. He pointed to the funding of climate innovation centres and green entrepreneurial ecosystems as evidence of the resolve of the World Bank to promote sustainable development.

The event involved round table panel discussions to promote effective business development models for micro, small and medium-sized eco-inclusive environmental enterprises. Furthermore, interactive prototyping sessions were held to engender ground-breaking solutions from the diverse stakeholders encompassing business, politics, academia and civil society. A highlight of the event was the Hogan Lovells Community Solar Innovation Awards 2017. This was given to honour exceptional eco-inclusive enterprises that employ solar energy or related interventions that enhance livelihoods in poor communities. Village Energy from Uganda won the ultimate prize for their “community solar expert” model, which develops the human capital and physical infrastructure needed for a sustainable rural solar economy.
Participants were generally upbeat about the socio-economic potential of the green economy and shared their thoughts accordingly:

Mao Amis (African Centre for the Green Economy); “The SEED symposium was a great event for networking with colleagues working on the green economy issues. This is critical because if we are to transition to an inclusive green economy, it requires collective action through building strategic partnerships for the movement to take root”

Chiloane Kgauge (WWF): “It was enlightening and impressive to listen to presentations on the extent of adaptation and economy work done by rural communities in Limpopo, KwaZulu Natal and Mpumalanga through SEED support programme. It would be good that SA scale up these activities to build resilience of even more rural communities and sustainable livelihoods”.

Sheraine Van Wyk (Whale Coast Conservation): “I think that the SEED symposium will come to be a defining experience in my career. It marks a moment where my path as an environmental scientist/educator diverts to that of an eco-social entrepreneur. I have a feeling that the people I met, the networking experience and the topics explored will make a profound difference in the way I do things. I am grateful to have received at the symposium the things that I instinctively knew I lacked to realise my aspiration of meeting the needs of the community I work. As a non-business person, I am tremendously grateful to have had the experience”.

Bertha Chiroro (Gender CC): “The Green economy is welcome and should deliver on sustainable job opportunities where inclusivity is the defining factor for women, girls and the most vulnerable communities facing the impacts of climate change in society, and it’s important for the green economy to provide gender just and innovative community led based solutions, that address people needs and new spaces in which women, girls and the most vulnerable should have opportunities both as consumers as well as entrepreneurs through green sector capacity building and training to ensure that the green economy does not leave anyone behind. If we are to expect wide scale economic transformation to take place, the green economy should ensure that women, girls and the vulnerable set the pace for the innovations that can drive a truly sustainable and alternative economy that is gender just and inclusive and does not place women and girls at the margins of the green economy”.

**Reflections on the Extended National Climate Change Committee Workshop**

*By Dania Petrik*

On the 19 and 20 March 2018, the Department of Environmental Affairs (DEA) hosted the extended national Climate Change Committee (NCCC) Workshop in Johannesburg, with the objective of providing a platform to facilitate wider stakeholder engagement on outputs/products of the implementation of the national climate change response policy (see National Climate Change Response White Paper). The meeting was attended by a range of stakeholders from government, business and civil society. Along with a number of other members of the Network, I attended and participated in this important event.

To put this event into its global and national context, the adoption of the Nationally Determined Contributions (NDCs) as a basis for implementing the global Paris Agreement places the responsibility for its delivery squarely on the shoulders of national-level government. Much depends on how countries and industries implement both the action required now and intensified ambition in the medium- to long-term. Whereas government must lead this process, it is clearly something that all sectors of society will have to contribute to.

The DEA is currently trying to quantify all the relevant policies and measures (P&Ms) in South Africa, which will assist with tracking SA’s performance towards meeting our commitments on the National Development Plan (NDP) under the UNFCCC. The NCCC Workshop provided the DEA with a platform to update stakeholders on progress made on various national-level policies and programmes and created an excellent opportunity for cross-cutting dialogue and robust debate on outputs of the NCCRP on topics relevant to both adaptation and mitigation measures. The first day of the dialogue focused on the National Adaptation strategy, with vigorous discussions around specifics of the chapters of the strategy, while the second day focused on discussions around climate change thematic areas, including climate finance, mitigation, adaptation, as well as climate change monitoring and evaluation.
The DEA led the workshop with a relatively relaxed and informal approach, ending sessions with question and answer sessions where relevant departmental liaisons responded to constructive comments - which enabled the meetings to be conducive to detailed feedback and inputs from the attendees. The Dialogue was attended by a broad representative of civil society, business and national level government, with great representation from the stalwarts of the DEA. The cross-sectoral nature of the workshop, as well as the informal essence of feedback sessions (such as the ‘World Café’ held on Day One of the Dialogue around the NAS) and the capacity of the relevant DEA representatives to take the critiques on board, meant that a thorough and varied commentary underpinned the interactions across the two-day workshop.

The outline of the programme was:

**DAY ONE:**

- Update on the Implementation of the National Climate Change Response Policy (DEA)
- The National Climate Change Adaptation Strategy (DEA)
- Work session – Review of the Draft National Adaptation Strategy per strategic objectives thematic areas (DEA)
- Summary and the next steps on finalizing the National Adaptation Strategy (DEA)

**DAY TWO:**

- Defining South Africa’s climate change adaptation research agenda (focus on LTAS) (DEA)
- Final Draft Report - Quantification of Mitigation Policies and Measures (DEA)
- Update on the Carbon Tax Bill (National Treasury)
- Water Master Plan (DWS)
- Accessing the Green Climate Fund (GCF) (SANBI)
- The 2nd Annual Climate Change Report (DEA)

Importantly, on Day One, workshop stakeholders were invited to provide input on the draft (revised) National Adaptation Strategy (NAS), with the discussions divided into 4 thematic areas: Climate Resilience and Adaptive Capacity [NAS Chapter 5]; Climate Change Adaptation Mainstreaming [NAS Chapter 7]; Climate Change Adaptation Policy, Planning and Implementation [NAS Chapter 4, 6 and 8] and Climate Change Adaptation capacity building, tracking, monitoring and evaluation [NAS Chapter 9 and 10]. Stakeholders were invited to comments on what is working, what is missing and what could be improved, with the DEA promising a summary report of the inputs.

Some key comments contributed by the public in the consultative process were:

**Climate Resilience and Adaptive Capacity [NAS Chapter 5]:** The vulnerability assessment purpose is not clearly defined; needs to avoid being too prescriptive to consider various contexts and sectors, which may not use the same approach-suitability of method; approach needs to allow flexibility as “no one solution fits all”; learning process around applicability needs to be improved; uncertainty around whether the framework enables building of resilience; there is a need to make the language specific (who are the practitioners? E.g. city planners/insurance agencies); important to try quantify the impacts of interventions and for practitioners to be able to prioritise these in implementation; missing research focus on informal settlements; further information gap on migration patterns (mobility of people), e.g. dispersemnt of people from coastal cities or areas aggravated by desertification within a broader regional context.

---

1 If stakeholders have the capacity to assist with re-drafting the NAS they are invited to contact the DEA directly
Climate Change Adaptation Mainstreaming [NAS Chapter 7]: cross-cutting vertical integration is paramount; the entry points for the NAS needs to be examined and understood for local and provincial government.

Climate Change Adaptation Policy, Planning and Implementation [NAS Chapter 4, 6 and 8]: there is limited legislative incentive and support for local government to prioritise adaptation; emphasis needs to be placed on horizontal and vertical alignment and integration; suggest inclusion of climate in provincial bioregional plans; there is a need to leverage existing tools such as the Integrated Energy Plan, NDP etc. in order to reinforce adaptation measures and instruments; extreme events should include both storm surge and sea level rise; the role of SALGA is unclear; the concentration on planning has the indirect result that there is a notable gap of key programmatic interventions that need to be considered; strategies for key sectors need to be linked to mainstreaming – for example, the plan for IDPs cannot be put in place as is, but rather needs to be mainstreamed within sector planning.

Other comments included:

- **Chapter 1** – the purpose is not clear and NAS objectives are not defined; and there is a gap in terms of linking cities to national government needs.
- **Chapter 2** - does not link to important policy documents and (eg. IPAP and NDP); it is not articulated clearly, nor does it adequately address the role of small and medium enterprises (SMEs) in adaptation (overall poor private/business roles and integration in general); there is a lack of synergy between agriculture, and the water and energy nexus; sectors of economy exclude tertiary and secondary service providers.
- **Chapter 3** - too much focus on planning, outcomes should rather be designed to save lives, prevent impact, improve vulnerability status of the poor etc.

During a ‘World Café’ styled discussion on Day 1, participants were given the opportunity to give feedback to the DEA on the NAS, which was later shared as part of the consultative process

[Source: Dania Petrik]

Comment was made that the previous version of the NAS was quite prescriptive and included a lot of project focus (e.g. ecological infrastructure), rather than looking at planning processes in a conceptual manner and balancing those with key interventions. The revised document tries to balance both planning and the implementation process.
While work is being done towards finalising the strategy, immediately upon assent of the Climate Change Bill (which needs to undergo the required rounds of parliamentary discussion), any substantive issues of the strategy will be reviewed. Both are being developed in parallel; however, the Bill precedes the NAS while the NAS tries to inform at a sectoral level (policy). The DEA clarified that the NAS is trying to establish which policy-relevant document could help in mainstreaming adaptation, but it doesn’t prescribe which specific policy document needs to be developed – thus it is less prescriptive than the Bill. For example, the Strategy examines how the national water plan can facilitate issues of adaptation – without prescribing to the Department of Water Affairs that they must have a water plan. The thinking behind the NAS is based on examining what tools are needed and what recommendations can be made. Once the Bill is signed, the development of the NAS will become a requirement of law. In the interim, the NAS will be the policy of government on adaptation until such time as there is an Act in place. In addition, the Climate Change Bill will clarify roles and responsibilities, and once it has been passed, issues related to cross-sectoral governance will be properly addressed, e.g. provinces will undertake risk and vulnerability (R&V) methodologies, and develop response plans etc. It remains important to focus on what the cross-cutting engagements are.

The governing framework affects the climate-related projects which are ultimately implemented according to the needs and priorities of different municipalities. Entry points between national and local level governance are not always aligned, and the roles and spheres of responsibilities are not articulated well. The governing framework affects the projects which are ultimately implemented according to the needs and priorities of different municipalities. The need to take advantage of existing structures and strategies in place is obvious, however, the critical issues around resources and capacity remains a limitation. At the Dialogue, the Department of Energy (DOE) was conspicuous by its absence, while Treasury, Department of Co-operative Governance and Traditional Affairs (COGTA), provincial and local level actors were not well represented— doing very little to mitigate the long-standing impression that government continues to lack integrated and coordinated implementation around both national-level policy adaptation and mitigation prerogatives.

***

It is important to reiterate the relevance of the definitive players in the country’s vertical and horizontal integration of national level policies in upholding the NDC commitments:

- DOE plays an enabling role in terms of capacitating municipalities to tap into energy-related opportunities, such as securing embedded generation and renewable uptake at a local level, critical for maintaining municipal revenue streams
- Treasury should be an active stakeholder whose role needs to prioritise sharing lessons with different spheres of government – and provide a platform for proactive engagement with line departments and bringing stakeholders together
- COGTA’s role cannot be understated, particularly related to the mainstreaming of climate-related issues and the development of Integrated Development Plans (IDPs) for municipalities
- Provincial level government can offer support programmes to municipalities and can play an active role in sharing experiences and shaping benchmarks for other provinces and municipalities to follow. Strong provincial leadership and an understanding of the cross-sectoral entry points for climate-relevant projects will do much to empower municipalities in delivery of their obligations
- Municipalities operate at the community interface in terms of national climate implementation and are responsible for local economic development, while delivering reliable water, energy and service supply, maintaining and building infrastructure, fulfilling urban design requirements, and executing sectoral planning mandates.
- Cities have a critical role to play in enabling national sustainable development prerogatives since they own both the services and assets that do (or could) contribute to successful delivery of domestic mitigation and adaptation targets.
Without attendance of all crucial representatives at relevant and timely workshops, seminars, trainings and focus group discussions, especially national-level hosted events such as the NCCC Dialogue where there is strong engagement with other business and civil society interests, the implementation of both adaptation and mitigation-centred solutions will not gain the momentum needed to catapult South Africa towards achieving its high-level climate change prerogatives.

With improved participation, relevant and critical stakeholders can be brought together in order to streamline climate-related best practice processes across the different tiers (national, provincial, local) of government, provide support to monitoring and evaluation of pilot project outputs, match under-capacitated municipalities to those which are able to provide practical lessons and benchmark cases, provide guidance for strategic planning (for example, with the private sector), coordinate climate finance opportunities, including support for proposal development, as well as allow the opportunity for civil society and the private sector to gain the understanding around national prerogatives, risk scenarios, and climatic fallout that might directly or indirectly affect them, while working to improve their own networks and collaborations.

On behalf of the Adaptation Network I would like to express my appreciation to our colleagues at DEA for enabling participation in this well-organised consultative workshop.

---

**Call for advancement of work in adaptation and resilience at 2nd Global Adaptation Network Forum**

*By Dania Petrik*

“We need to strengthen the resilience of our people, our environment, our infrastructure and our economies against the intensifying impacts of climate change.” – Fiji’s High-Level Climate Champion, Minister Inia Seruiratu, 2nd Global Adaptation Network Forum in Abu Dhabi

The 2nd Global Adaptation Network Forum aimed to focus on key challenges for climate change adaptation and provide an opportunity for decision makers, policy experts and practitioners to share knowledge and experience on how to address these challenges. Importantly, the forum also aimed to contribute to the recently launched Talanoa Dialogue - a participatory and transparent dialogue convened under the Conference of the Parties (COP) that fosters the sharing of ideas, skills and experience through storytelling. This facilitative dialogue takes stock of progress towards long-term goals set out in the Paris Agreement, as well as consider the efforts of Parties in relation to action and support in the pre-2020 period. The outline of the dialogue process, as well as other relevant documents can be found in the Presidency’s corner of the Talanoa Dialogue Portal ([https://talanoadialogue.com/presidencies-corner](https://talanoadialogue.com/presidencies-corner)).

The Forum, organized jointly by UN Environment’s Global Adaptation Network and Zayed University in Abu Dhabi and held in Abu Dhabi on the 20-21 March 2018, provided key inputs to the questions that the Talanoa dialogue is addressing:

1) Where are we?
2) Where do we want to go?
3) How do we get there?

Four main themes underpinned the Forum, namely: i. From the Gulf to the World – focused on specific adaptation challenges facing Gulf states and the solutions and technologies needed, including how to ensure access to clean freshwater; ii. Adaptation metrics for assessing risk and progress – a theme driven by the need of the private sector to understand and be able to quantify physical climate risk in order to improve resilience; iii. Adaptation Learning – this theme engaged with platforms needed for the development, sharing and application of climate knowledge; and iv. Reaching the most vulnerable – focused on the risks faced by the most vulnerable communities and the actions required to respond effectively.

In addition to these main themes, a further cross-cutting theme on the role of non-state actors, including the private sector, in adaptation was included.

---

April 2017, Page 13
The Forum also included a regional Technical Examination Meeting on Adaptation (TEM-A) as part of the Technical Examination Process on Adaptation (TEP-A) under the UNFCCC Adaptation Committee. The TEM-A had a specific focus on adaptation actions that reach the most vulnerable.

Fiji’s High-Level Climate Champion, Minister Inia Seruiratu, reiterated the need for urgent action in strengthening the resilience of people, our environment, our infrastructure and our economies against the intensifying impacts of climate change at the opening of the Forum.


Outputs from the conference are forthcoming. For more information: https://www.unenvironment.org/events/conference/second-global-adaptation-network-forum

ACDI Institute Launch: "One Big Idea" Panel Discussion

The African Climate Development Initiative (ACDI) recently graduated from being an initiative of UCT’s Vice-Chancellor to being a fully-fledged University Institute.

In honour of the new status, a celebratory event was held on the 16 April 2017 in order to acknowledge and thank both the internal and external partners that helped build the ACDI into the institution it is today, as well as reflect on the agenda for future successes and challenges.

Most notably, a panel discussion took place with highly-regarded panellists who were asked to propose their thoughts around “One Big Idea” that might help transform our current trajectory towards one that is more equitable and just, less environmentally damaging and carbon intensive, more kind and supportive, and ultimately build a better world for future generations.

The speakers are stalwarts of the climate field, renowned in their own right - Tasneem Essop (Energy Democracy Initiative), Mandy Barnett (SANBI Climate Fund), Kirtanya Lutchminarayan (WWF), Edgar Pieterse (African Centre for Cities, UCT), Bruce Hewitson (Climate Systems Analysis Group, UCT) and Harald Winkler (Energy Research Centre, UCT).

Each panellist was given five minutes to present their “One Big Idea”, and this was followed by a question and answer session with the largely academic audience.

Professor Edgar Pieterse began the presentations with a strong call for a fresh, political, cultural imaginary – a yearning for clear, emphatic, bite-sized actions that can be stitched together across developmental issues, including political challenges, in order to prescribe creative solutions and reconfigure the current unsustainable cultural narrative. The argument was based on the sensibility of “thinking-feeling-doing”, where individuals experience a sense of agency, and collective, pragmatic responses result in a profound sense of transformation through discrete actions.

Interestingly, all panel members emphasized the need for impactful actions at an individual level that collectively result in change. Mandy Barnett spoke of the importance of moving from ‘silos to systems’:
using vertical and horizontal integration to better match the needs at a local level, such that communities are connected to the policy space, collaboration is increased across business, government and civil society, and the great divide between the scientific and societal interface is breached.

Professor Bruce Hewitson took this further at a macro scale, by querying how to use leverage points to allow the different (and often opposing) spectrum of players in the international negotiations and climate finance worlds to overlap, such that the ‘African’ voice can be heard within this arena. In terms of international funding, the ‘Western, educated, and from industrialized, rich, and democratic’ (or WEIRD) nations are typically the root of financial resourcing, which – he said – brings about both an ethical and practical problem in pre-supposing what the specific climate solutions might be for developing countries, which in turn limits the individual voice of experiential knowledge in a largely theoretical space. Professor Hewitson used the example of cohorts to reiterate how such leverage points can be used, where, for example, students are placed alongside practicing scientists in the field to address a particular climate or developmental issue, and are given the freedom to fail in (and learn from) addressing such problems. In this manner, individual experience can be better used to steer investments.

Kirtanya Lutchminarayan brought the discussion back to ground-level in her presentation, which was centred on the premise that one “cannot strive for theoretical change without acting in accordance” – that the ways to undo the planetary damage truly means going back to basics at an individual level; skipping the straw, cycling to work, building composting toilets in households etc. This means reteaching and relearning that nature is our means for survival as a species and undoing the centuries of harm from commodifying nature without paying the cost associated with its benefits.

In his presentation, Professor Harald Winkler brought home the point that creating new development pathways, which are more equitable and ecologically sustainable, must make use of leverage points to intervene in a system – with the most effective interventions being made at the point (mindset or paradigm) from which the system itself arises. Changing these systems requires changing the norm across social, cultural and political boundaries – it requires paying for mitigation efforts, while at the same time reducing consumption, assisting the poor, and changing the aspirations of the middle-class, who cannot follow the consumption pathways of the upper-income echelons without blowing the carbon budget.

Professor Winkler’s presentation flowed seamlessly into the presentation of the final speaker, Tasneem Essop, who spoke on the concept of a Just Transition – a complex, deeply political principle which at its core, deals with power dynamics within a system. More sustainable systems have to redress issues of poverty and inequality through a democratic approach which is seen to do justice because of the very reason that those who are least responsible will bear the biggest burden of our unsustainable consumption. Thus, a just transition puts the public interest above private, values smaller but often more efficient changes, internalizes externalities which may have been previously discounted, makes visible both formal and informal vested interests, and above all, decouples GDP as a measure of progress.

The panel was closed with a robust question and answer session, with insights from both the audience and the speakers that offered profound perspectives on the climate and developmental challenges faced. In essence, the take-home was that there is indeed an opportunity for radical change at a local and individual level; however, the fundamental change that is required will not happen without disturbing the current political and cultural framework.

Congratulations to the ACDI on an important milestone and in organizing a stellar event, where the audience was able to hear first-hand from the fore-runners of South Africa’s climate and development research.
Earlier this month, the 2nd edition of the South African Risk and Vulnerability Atlas was launched in Cape Town and Durban. First published in 2012, the SARVA has been updated to reflect enhanced knowledge of future climatic impacts in South Africa, placing greater emphasis on specific themes and including relevant case studies.

South Africa, due to its position below the Tropics, is very vulnerable to large-scale climate change. In addition, the country has historical socio-economic conditions that are not yet worked out, which is an important contribution to and consideration of vulnerability. Predictions are that the country will become both hotter and drier, while extreme events are likely to increase. Impacts will expose the already vulnerable economic sectors and weak governance systems.

The SARVA provides a spatial database system that aims to understand the complexity of planetary and human systems that interact on a macro (global) and micro (regional, and even individual) scale, with the overall aim of responding to risks and building resilience to climate change across business, government and civil society. The Atlas thus acts as a decision-support tool that bridges the gaps between the science-policy-practice interface. The targeted users include municipalities, research institutions, organised local groups (e.g. farmers), and Risk & Vulnerability centres, which collect and integrate local data.

The Atlas can be used for cross-cutting purposes, such as the identification of hot spot areas for interventions, assessing climate risks facing municipalities, or for local level government to identify vulnerable communities.

The hard copy SARVA is complemented by an online portal, managed by the South Africa Earth Observation Network (SAEON).

Click here to access the online tool: http://data.sarva.web.za

Stakeholders are invited to join SAEON in the Learning Event roadshow - an opportunity to engage with the online SARVA tool and learn how to use it, as well as give feedback as to what information is most pertinent to the various interest groups, such as municipalities. The roadshow also presents a unique opportunity for government and the private sector to interact in an environment dedicated to problem-solving around climate risk scenarios using geographic information.

See here for more information on the roadshow: http://bit.ly/SAEONroadshow
Save the date: Adaptation Futures conference (18-21 June 2018)

Adaptation Futures 2018 provides an opportunity to debate new approaches to climate change adaptation and to connect with more than 1000 international delegates from academia, government, civil society and business.

Key note speakers:

- **Aruna Ranil**, Director of the Indian Institute for Human Settlements (IIHS), India
- **Dr Cheikh Mbow**, Executive Director of the International START Secretariat
- **Dr Edna Malewa**, Minister of Environmental Affairs, South Africa
- **Dr Musonda Mumba**, Coordinator of the Flagship Programme for Ecosystem Based Adaptation, Climate Change Adaptation Unit, UN Environment, Kenya
- **Saleemul Huq**, Director of the International Centre for Climate Change and Development, Independent University, Bangladesh
- **Stéphane Hallegatte**, Lead Economist with the Global Facility for Disaster Risk Reduction at the World Bank
- **Steve Nicholls**, Head of Environmental Sustainability, National Business Initiatives, South Africa

Conference Chair

**Mark New**, Director of the African Climate & Development Initiative (ACDI), University of Cape Town, South Africa

@adaptfutures

www.adaptationfutures2018.capetown
Credits

This newsletter is produced by the Adaptation Network Secretariat,
which is hosted by Environmental Monitoring Group

Contributors to this edition:
Felix Donkor: SA Adaptation Network Member, Wits University
Peter Johnston: Climate Researcher, Climate System Analysis Group (CSAG), University of Cape Town, South Africa
Piotr Wolski: Senior Research Officer (hydro-climatology), Climate System Analysis Group (CSAG), University of Cape Town, South Africa
Noel Oettlé: Adaptation Network, Environmental Monitoring Group (editor)
Dania Petrik: Network Coordinator, Adaptation Network, Environmental Monitoring Group

With thanks to The Daily Maverick / Ground-Up

Articles do not necessarily represent the views of all Adaptation Network members.
To contribute please email Dania Petrik: dania@emg.org.za
Download a PDF version of this newsletter at: www.adaptationnetwork.org.za/news

The work of Adaptation Network is made possible through contributions
from the Government of Flanders

www.adaptationnetwork.org.za
info@adaptationnetwork.org.za / Tel: +27 27 218 1117 Neethling Street, Nieuwoudtville, 8180, South Africa