

Newsletter : July 2015

Contents

Africa takes the lead on climate friendly development

Reflections on Caux Dialogue On Land and Security

Invitation to review SmartAgri report

Desertif'actions 2015 calls for equity in international agreements

Climate News

Africa takes the lead on climate friendly development

By Rehana Dada

INDC submissions are currently coming in to the UNFCCC^{see note}, if not thick and fast, at least with purpose and resolve. The collection of countries on the nearer side of commitment to action on climate change includes both big and small economies, and the submissions themselves could be seen to be another concretisation of the same stances that have been taken throughout almost the entire history of the negotiations. However, alongside the formal climate negotiations processes, a number of innovative process show countries' commitment to addressing climate change and sustainable development, one such process being the Africa 2020 Initiative.

Photo by Rehana Dada



Kenya plans to install 400 MW of wind power

Kenya is the most recent African to submit its INDC. Its emissions in 2010 stand at 73 MtCO₂eq, of which 75 percent is from agriculture and LULUCF (land use, land use change and forestry), with a significant amount of this a result of the use of wood fuel. In its INDC the country states its commitment to reduce its greenhouse gas emissions by 30 percent by 2030 relative to its BAU (business as usual) scenario of 143 MtCO₂eq. Its adaptation contribution is to ensure enhanced resilience by mainstreaming adaptation in its medium term plans and implementing adaptation actions.



Morocco, which submitted its INDC in early June, commits to a reduction of 32 percent by 2030 compared to its BAU scenario, which it states translates into a cumulative reduction of 401 MtCO₂eq over the 2020-2030 period. This will be achieved through transforming its energy sector, along with strong political commitment. It states that it intends to produce over 50 percent of its electricity from renewables by 2025, reduce its energy consumption by 15 percent by 2030, substantially reduce fossil fuel subsidies, and increase the use of natural gas. There will also be interventions in other sectors such as agriculture, water, and industry.

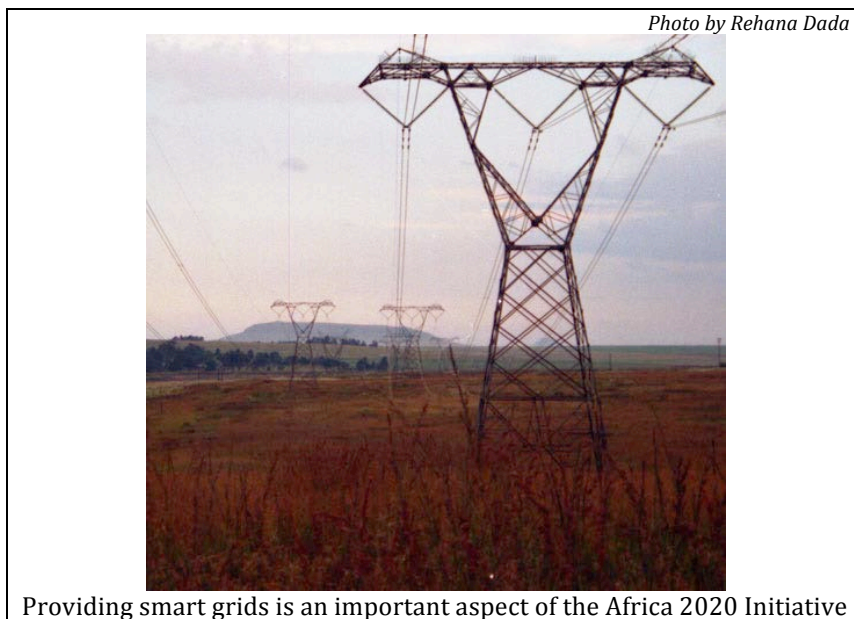
Morocco's adaptation objectives are: to protect its people through a risk-prevention management approach that relies on observation and research around current and future climate risks; protect its natural heritage and natural resources through ecosystem restoration, flood prevention and combating soil erosion using an ecosystem based adaptation approach; protect high risk infrastructure and climate-sensitive systems such as agriculture and tourism; and protect its cultural heritage. The country already spends 9 percent of its overall investment expenditure on adaptation, and commits to increasing this to 15 percent.

Both Kenya and Morocco's INDC are pronounced in their conditionality on support in the form of finance, technology, and capacity building. Morocco's finance requirement to achieve its mitigation commitment is USD 45 billion, and its ability to commit is conditional on receiving about 75 percent of its budget through international support. Its adaptation targets require international support in technology and capacity building. Kenya estimates that it needs USD 40 billion to achieve its climate change goals but has not yet stated its domestic capacity.

As Seyni Nafu, spokesperson for the Africa Group of Negotiators (AGN), explains, "Finance is going to be very important - it's always been important in climate negotiations for developing countries, in particular Africa." The AGN is developing a proposal for finance for the pre- and post-2020 commitments which will cover matters such as the call for USD100 billion per annum by 2020 to support developing countries in meeting climate change commitments, replenishment of the Green Climate Fund, and sustainability of the Adaptation Fund. He says, "We have a very

comprehensive position but partners are not willing to make new commitments because of the economic situation. For us, the finance package is one of the elements that will make the Paris commitment relevant – and that’s finance in the text, in the complementary COP decisions, and also in the new initiatives that Africa is taking on renewable energy as well as adaptation and loss and damage.”

The Africa 2020 Initiative is being developed with the intention of enabling energy access and scaling up sustainable development. Over two thirds of Africa’s people lack access to modern energy, with the gap estimated at over 300GW. Developing an environmentally friendly and efficient energy infrastructure is a key NEPAD goal in the drive for sustainable development, and there is also recognition that much of this energy needs to come from renewables in order to minimise global warming. The continent has strong renewable energy resources, and its lack of an extensive modern energy system can be considered an opportunity to develop a system based on the newest available renewable technology. “Our hypothesis is that renewable energy can play a significant role in increasing access to energy on the continent, and this is an opportunity that cuts across sustainability, development and finance for development,” explains Nafo. The Initiative was approved by AMCEN (African Ministerial Conference on the Environment) in late June.



In its first phase, Africa 2020 aims to provide 10,000 MW of renewable energy capacity and develop smart grids in at least 10 to 15 countries by 2020. This would be achieved through: investment and resource mobilising to scale up private and public finance, enable finance readiness and support smart monetary and finance policies; research and technical support for policy and other incentives; and strengthening Africa’s engagement in international negotiations to build support for a Global Renewable Energy Support Initiative. The intention is to establish a functional structure and start roll out of the initiative by January 2016. Africa initiatives already underway to develop renewable energy include Kenya’s plans for 400MW of wind capacity by 2020. Finance is also key in implement these initiatives, with Africa 2020 requiring at least USD 20 billion, a quarter of which needs to come from grants.

The AGN is also developing a comprehensive proposal for adaptation and loss & damage across Africa. It identified four areas for work: Enhancing observational infrastructure and early warning, strengthening African institutions and national processes, and enhancing regional and international cooperation. Says Nafo, “These areas are very broad, but we developed our plan this way to be able to capture the richness of the national plans and programmes of African countries”. The proposal links the climate and post-2015 development agendas. It is expected to be released publicly in August.

“We are committed, we are capable and we are willing and able to act,” says Nafo, “It’s one thing to say Africa is vulnerable and needs finance to adapt, and it’s one thing to come up with ways through textual negotiations to address those challenges. We’re doing all of that, but we’re also taking it to the next phase, which is for Africa to devise our own plans and strategies, and if we get any support, it is to further operationalise the frameworks devised by the continent.”

Preparations are underway to ensure that African ministers and heads of state have a powerful set of tools and instruments to support their engagement in the negotiations. Even if the Paris agreement looks likely to disappoint those asking for strong, binding commitment, the processes alongside the formal negotiations might prove to be significantly effective in contributing towards sustainable development and containing global warming.

***Note :** The unwillingness of developed countries like the USA to submit to obligatory actions to curb global warming under the UNFCCC unless less developed countries also do so led to a stalemate in negotiations. In order to break this, COP 17 in Durban in 2011 established the Durban Platform for Enhanced Action (ADP), and subsequent negotiations under the ADP resulted in agreement that all countries would commit to a set of Intended Nationally Determined Contributions (INDC). All countries were asked to communicate their INDC to the UNFCCC in advance of COP 21, which is due to take place in Paris in December 2015.*

Reflections on Caux Dialogue On Land and Security

By Noel Oettle and Candice Arendse

Globally, precious topsoil and productive land are being lost at an alarming rate, yet little land restoration is taking place, despite the pressing imperative to do so. An area three times the size of Switzerland is lost to agriculture every year. There are many reasons for this, including divided responsibilities, and in the fact that most of the solutions exist outside the normal focus of governments and development agencies. Degrading land leads to conflict over resource access, poverty, and insecurity. It is one of the drivers of migration and civil unrest. These issues were addressed at the 3rd Caux Dialogue on Land and Security which took place in Switzerland from 10 to 14 July 2015.



Photo by Noel Oettle

Cynthia Coetzee, Groen Sebenza intern with Environmental Monitoring Group conducting rehabilitation work on a donga in the Avontuur Nature Reserve, Namaqua District, N. Cape

The dialogue created an opportunity for scientists, policy makers and land restoration practitioners from around the world to explore the complexity, successes, opportunities and challenges of advancing human security in a resource-challenged world. During the course of the dialogue, participants shared simple, effective, inexpensive and proven ways of restoring land to its full capacity to grow food, retain water and act as a natural buffer against extreme weather. Emerging practice in multi-stakeholder approaches was also shared, emphasising how important it is to ensure that governments create enabling legal and policy environments for action. This approach directly supports the most poor and vulnerable, helping them find income and more gainful employment on their own land.



Rehabilitation of degraded land via a check dam at Avontuur in Namaqua District, Northern Cape

In his opening keynote address, Rear Admiral Neil Morisetti, the United Kingdom Climate and Energy Security Envoy from 2009 to 2013, emphasised the need to prioritise climate insecurity to address consequent human security issues in energy, water and land, specifically in the global drylands belts. He explained that failing to address climate change issues in this regard might create domino effects, leading to increased human migration and increased pressure on systems and governance in certain regions.

During the dialogue, alarming global statistics and issues were shared. For example, Youssif El Tayeb El Nour of the Darfur Development and Reconstruction Agency provided insight into how resource competition and depletion have played a key role in the humanitarian disaster in the Darfur region of Sudan. Over four million people have been affected by the conflict in Darfur, where more than half a million people have been displaced from their homes and many are forced to live in refugee camps. Experiences were also shared of “virtuous circles” that link peace-building initiatives with restoration of land-based resources.

Land use forms the point of convergence for such priority items on the global agenda as water and food security, extreme poverty, climate change, conflict and mass migration. On average, six to ten inches of topsoil is all that separates stability and conflict, yet the central importance of land is obvious in the world’s drylands, which used to feed about 40% of global population. As land is lost and the populations grow, conflict increases as more and more people compete for what remains. Eighty per cent of the world’s conflicts now take place in its drylands, and countries under particular pressure risk becoming failing states.



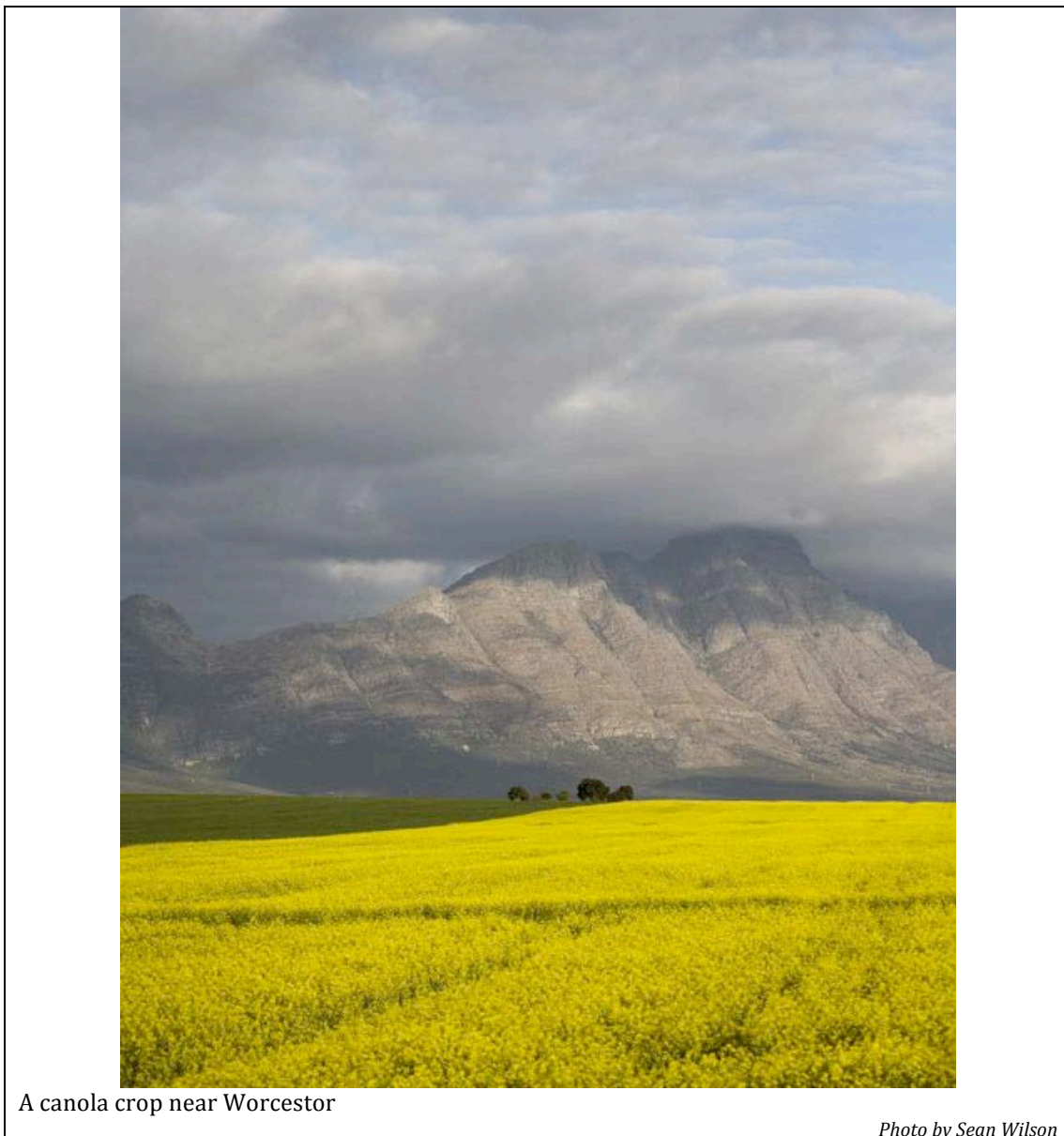
Caux Dialogue participants in discussion

Guillaume Benoit, Advisor for Food, Agriculture and Rural Areas in the French Ministry of Agriculture, addressed the closing session of the Dialogue. He noted that the engagement of farmers in the food value chain is essential to enable them to derive improved benefits and to become more empowered as land managers. He also pointed out that agro-ecology is actively supported and implemented in France with a high success rate. France aims to have 50% of its farms using agro-ecological methods by 2025, and expects that the nation will benefit through improved water use and storage in the soil, enhanced food security, reduced greenhouse gas emissions, enhanced carbon sequestration, and reduced urban sprawl. France is committed to fighting poverty and food insecurity, and to implementing the three Rio Conventions via agro-ecology.

Successful technologies and sound approaches to the problems of land degradation abound, and can contribute significantly to efforts of land-using communities to adapt to climate change and ensure the sustainability of their livelihoods and communities. Focused political effort will be needed to ensure that investments in land, especially those undertaken under the UN system, result in the well-being of local land-using communities.

Invitation to review SmartAgri report

By Stephanie Midgley



A canola crop near Worcestor

Photo by Sean Wilson

Due to climate change, the Western Cape farming landscape is at risk of losing much of its productivity. This threat requires intelligent and innovative responses. With the aim of creating sustainable, climate-smart responses for increased resilience in agriculture, the Western Cape departments of Agriculture and Environmental Affairs & Development Planning launched SmartAgri in August 2014. It is lead by the African Climate and Development Initiative (ACDI) at the University of Cape Town, and uses a highly collaborative approach. Project manager Stephanie Midgley explains that SmartAgri , “captures the understanding, experiences and needs of a wide range of stakeholders in the province.”

The first phase of SmartAgri focused on creating a Status Quo Assessment of impacts and responses to climate change in agriculture in the Western Cape. It is now complete and undergoing a review process that brings together the expertise of an interdisciplinary team of scientists. The review is intended to assess the agricultural sector of the province from different angles in order to develop a holistic understanding of how climate change will affect the region.

The team found that the Western Cape will likely remain a strong agricultural region, at least in the near to medium term. It is likely that there will be ‘winners’ and ‘losers’ and the sector, together with government, needs to identify and provide support to the latter. The next phase of the SmartAgri project will involve developing a Climate Change Response Framework and Implementation Plan, with the aim of providing mechanisms for such support.

Smallholder and commercial farmers and their support networks are invited to contribute their knowledge.

The report and comment form is available on the SmartAgri page on the ACDI website:

<http://www.acdi.uct.ac.za/research/smartagri>

Or you can email Nadine at: smartagriwesterncape@gmail.com

Desertif'actions 2015 calls for equity in international agreements

By Noel Oettle

From 10 to 13 June 2015, over 300 participants from 57 countries participated in the Desertif'actions 2015 conference that was hosted in Montpellier, France. This event, dedicated to addressing land degradation and desertification in a climate challenged world, created a discussion platform focused on how environment, development and international stability are dependent on sustainable land use, especially in the context of the current and future impacts of global warming.



Desertif'actions 2015 participants at Montpellier

Photo courtesy of Centre d'Action et de Réalisations Internationales

The disappearance of 75% of crop genetic diversity since the beginning of the 20th century, and the moderate to severe degradation of 52% of global farmland are very disturbing realities. At the same time, the large-scale acquisition of agricultural land by international investors (reaching 37 million hectares in 2011), has eroded the rights of farmers and local land users. Increases in temperatures and the frequency of extreme weather events are particularly destructive in areas subject to drought and aridity. Already 1,5 billion people in arid areas suffer from land degradation, and this includes

65% of Africa's population. The impact of global warming on land and conversely the contribution of land degradation to climate change, results in a negative spiral of effects on ecosystem services and the livelihoods of people who depend on them.

Desertification participants agreed that policies should protect and encourage family farming by guaranteeing the right to food as defined by the United Nations. They decided that any climate change agreement adopted by the UNFCCC COP 21 must include funding for family farming and community-based adaptation, and should not provide resources for false or untested solutions.

Delegates were in full agreement that the concepts of Climate Smart Agriculture and Land Degradation Neutrality should primarily be at the service of local communities. However, they were concerned that these concepts could be used as Trojan horses to undermine some of the elements of sustainable management of natural resources and lead to the wider dissemination of agricultural chemicals and genetically modified crops, or as a vehicle to advance land grabbing.

Participants further called for the urgent rehabilitation of 500 million hectares of degraded land globally. However, good governance of land was considered to be essential for minimising conflict over land-based resources. In this context, the guidelines developed by the United Nations Committee on World Food Security were adopted as the basis for action by governments, investors, donors, the private sector and civil society.

At the conclusion of the conference, the Montpellier Declaration was adopted to draw attention to the urgency and importance of advancing equity through the international agreements on climate change and sustainable land management.

The Montpellier Declaration can be viewed at : http://www.adaptationnetwork.org.za/wp-content/uploads/2015/07/Da15_Final-declaration-EN.pdf

Climate News

By Rehana Dada and Candice Arendse

Civil Society Alternative Programme to the World Forestry Congress

The World Forestry Congress (WFC2015) will be held in Durban from 6-11 September 2015. The event will bring together commercial, government and intergovernmental interests in this industry. A Civil Society Alternative Programme (CSAP) is being organised in parallel with the intention of providing a space for civil society and community groups to raise awareness about the environmental and social issues connected to the WFC2015 agenda as well as possible civil society solutions. The CSAP events and activities are aimed at stimulating discussion about challenges facing local communities affected by the global timber industry, and can thus contribute to a dialogue that could lead to positive changes. It is being organised by Timberwatch in partnership with its local and international members and partner organisations.

More information is available at www.csap-durban.org

Email Wally Menne at: timberwatch@iafrica.com or call 082-4442083

Adaptation Network winter workshops

Registration is still open for the Adaptation Network winter workshops in Pretoria, Cape Town and Grahamstown. The workshops are titled *Practical Adaptation for Vulnerable Communities* and are designed to enable participants to deepen their understanding of climate science, and conceptualise and facilitate adaptation processes. Workshop attendance is free for Adaptation Network members, and non-members are required to pay a R200 registration fee. Participants are asked to cover their own travel and accommodation costs. A limited number of travel bursaries are offered.

Upcoming Workshop Schedule

- 12 & 13 August 2015: Pretoria (SALGA, Menlyn)
- 25 & 26 August 2015: Cape Town (Kirstenbosch)
- 01 & 02 September 2015: Grahamstown (Rhodes University)

Details at www.adaptationnetwork.org.za or please email info@adaptationnetwork.org.za

Concerns raised about commercialisation of cowpea seed

This month the African Centre for Biodiversity (ACB) released a report on the commercialisation of cowpea seed production and distribution in West Africa, arguing that the push to commercialise cowpea coincides with growing interest from seed companies. Cowpea, one of the oldest crops known, has its centre of origin in southern Africa, and provides food during the 'hungry season' before cereals mature. According to Mariam Mayet of the ACB, "There is a corporate push backed by the United States Agency for International Development (USAID) and the G8 New Alliance on Food Security and Nutrition to harmonise seed laws and intellectual property rights legislation on the basis of the Union for the Protection of Plant Varieties (UPOV) 1991. This push seeks to create regional markets for crops that otherwise would not have the economies of scale for corporate investment. Corporate investment in regional seed markets relies on varieties being released onto regional lists and that are immediately made available without further trials."

The report argues that the cowpea push in Burkina Faso, Nigeria and Ghana coincides with interest from multinational and local seed companies to produce genetically modified seed in the region via the insertion of the Cry1Ab Bt gene. The authors draw attention to the resultant threats posed to traditional seed saving practices and locally adapted seed varieties, proven health risks associated with the use of this particular gene in other crops, ecological impacts if the gene escapes into the wild, and the high input prices associated with GM technology.

The report is titled, *GM and seed industry eye Africa's lucrative cowpea seed markets: The political economy of cowpea in Nigeria, Burkina Faso, Ghana and Malawi*. It is available at www.acbio.org.za

Climate change compresses bumblebee home range

The geographic range of animals is determined by several climatic factors, and this is just one indication of the impact that climate change will have on species range. A new study by biologists at the University of Ottawa reveals that bumble bee populations in North America and Europe have not been able to successfully adapt to climate change. Known globally as nature's crop pollinators, these insects show shrinking in population size due to their inability to migrate to cooler areas. Bumblebee range has also decreased by up to 300 kilometers. The response of bumble bees to climate change was determined by comparing migration movement of 67 bumblebee species over different time periods. The investigation found that despite shifting from cooler to warmer climates during the past decades, bumble bees did not shift their ranges northward, and populations disappeared from the southernmost and hottest parts of their ranges. The study provides valuable information needed to understand the complexity of the adaptation needs of bumble bees, and also sheds light on the adaptation needs and behavior of other animals.

Ocean acidification may cause dramatic changes to phytoplankton

Ocean acidification will spur significant changes in phytoplankton species around the world, with some populations flourishing, some shifting their ranges polewards, and others dying out. This is according to a team of researchers from the Massachusetts Institute of Technology, University of Alabama and other institutions. Ocean acidity has increased since pre-industrial times as a result of increased uptake of carbon dioxide, with oceans absorbing about 30 percent of human released carbon dioxide. Ocean acidity is projected to drop to a pH of about 7.8 by 2100, which is significantly lower than levels seen in any open ocean marine communities today. Pre-industrial ocean acidity was well over a pH of 8. Although there are other climate drivers in oceans, acidification was shown to have a greater impact on phytoplankton than warming, altered light conditions, or nutrient reduction. Phytoplankton are the base of the marine food chain, and there are likely to be impacts all the way up the chain. The research was published in Nature Climate Change on 20 July 2015.

Durban Indigenous Plant Fair

The Durban Botanical Society is teaming up with the Sustainable Living Exhibition this year for its annual Indigenous Plant Fair. The fair is intended to support homeowners and garden lovers restore nature to their gardens. It offers a fabulous variety of plants on sale, experts on hand for advice, and talks and exhibitions. It will be held at the Durban Exhibition Centre from Friday 14th August to Sunday 16th August, 9 am to 5 pm each day. The Botanical Society is also calling for volunteers for the fair.

More information is available at www.indigenousplantfair.org.za

Or contact Sandra Dell at botsoc-kzn@mweb.co.za

Newsletter Credits

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To comment or contribute please email : info@adaptationnetwork.org.za

Our deadline for submission for the next newsletter is 20 August 2015.