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Climate of catastrophe and commitment

By Penny Urquhart

Catastrophe. The word has a terrible ring – you can almost hear the cataclysm unfolding, as you say it aloud. Previously, could it be that we used this word more rarely, to describe wars and famines that would scarcely touch many of us? Or is that just wishful thinking, merciful amnesia? Whatever the case, the word now permeates our vocabulary and infects our zeitgeist.

Lately, it is related to violent insurgence: Beirut, Paris, Bamako, and northern Cameroun – to name only some of the events of the past two weeks. Are these catastrophes, or 'just' tragedies? For the families of the victims, and the communities in which they take place, they must feel cataclysmic. Lives are torn apart, dreams are vaporised; things will never be the same.

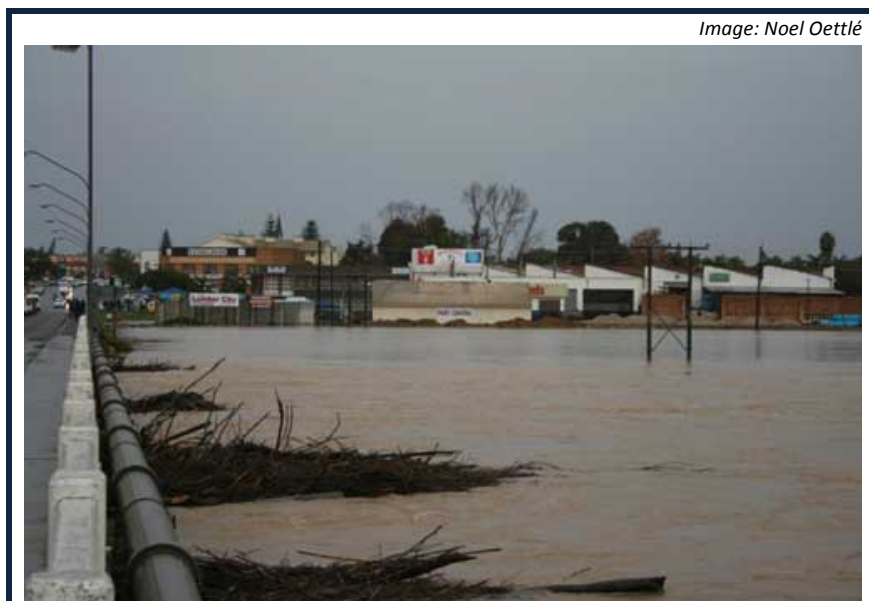


Image: Noel Oettlé

Flooding in Vredendal, 2008. Extreme weather events are projected to become more frequent and intense as climate changes.

On the climate front, superstorms like Haiyan in the Philippines and Sandy on the eastern seaboard of the USA have ratcheted up our use of the C-word, by wreaking huge damage on people, their livelihoods and infrastructure. We can add Australia's 'angry summer' of 2012-2013, which broke 123 climate records in 90 days, and this year's El Niño, described as a 'Godzilla' by NASA, which promises to deliver a monster drought in Ethiopia and epic floods in Peru.

Heat and water, intensifying in the atmosphere and decoupling in the soil, drive changes in the biosphere and take on new meanings in our minds. In the oceans, we have heat and acidity coming together in previously unknown ways, changing physical and biological processes in ways that do not bode well for climate stability. We now know that if business as usual continues, we are on track for an average global temperature increase of between 3.5 and 5 degrees Celsius by 2100. We may even exceed a 2 degrees increase by the middle of the century.

To this potent mix, we can add the interlinked effect of sea level rise, possibly coming faster and higher than we had thought. Since the IPCC Fifth Assessment, scientists have warned more strongly of the growing risks of large-scale ice sheet collapse in Greenland and Antarctica. Many glaciers have been speeding up in recent years, with studies now showing that the Amundsen Basin in the West Antarctic has likely crossed a tipping point. This means that the retreat of the basin's glaciers has now become irreversible, in all likelihood. Should the entire Amundsen Basin drain into the ocean, this would raise sea level by 1 metre, inundating cities like Banjul in The Gambia, and unique ecosystems like Florida's Everglades. The impacts on low-lying food growing areas will be disastrous, if we are not prepared and do not act decisively and well in advance.

Things could be even worse: there are signs that other Antarctic glaciers may also be retreating irreversibly. If the entire West Antarctic ice sheet were to collapse, sea levels would rise by 5 metres. And if the same were to happen to East Antarctica, this would raise sea levels by 50 metres. This would happen over long timescales – hundreds to thousands of years, as far as we know at this stage, but it's barely possible to imagine the consequences – we would need a new word to describe the catastrophe.

In a week's time, both of these threads of violence and climate will come together in the world's imagination, as the 21st session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) takes place in Paris. The conference will be held under the tightest security, with many of the supporting events curtailed. The planned Climate March is cancelled. Some in civil society rail against this 'shutting down of the people's voices', while others are silently relieved, acknowledging that this may be pragmatic rather than political. Some are considering not even going to the former city of light for these crucial negotiations.

To go or not to go is an individual choice. But whether we are there in person or spirit, we cannot be deterred from action, because climate change could pose even a stronger threat to global security, equitable development, and human well-being than the attacks that now increasingly blight our world. As Rebecca Solnit wrote in *The Guardian* last year, "Call climate change what it is: violence".

Even if it is true, as some scientists think, that we have missed the chance to prevent 2 degrees warming, not to mention the 1.5 degrees that is preferable, we still cannot give up. Internationally, we must be more determined than ever to forge a strong global climate change agreement. And beyond that, we must act in a multitude of other ways – as individuals, rural groups, city governments, youth caucuses, regional organisations, businesses – to drive down emissions and implement adaptation.

We can follow the example of the Parisians gathering in the Place de la République a week after the attacks, who showed that Paris will not be shut down; and of the president of Mali two days after the attack on the Radisson Blu hotel in Bamako, who vowed that the country would not surrender. In so doing, we can let catastrophe, present and future, real and projected, fuel our commitment.

Finance Drums Beat Louder Ahead of Paris

By Felix Kwabena Donkor

When it comes to the climate talks there is a chorus of discontent that echoes Oliver Twist's "Please, sir, I want some more" or to put it plainly, we want more emissions cuts, support, commitment. This demand comes from all sectors of the world's citizenry – including the corridors of power - and can be heard at fever pitch in the climate finance arena where there is enormous displeasure with the nature and amount of funding pledged and delivered. As the Paris talks take off, drums are beating loud for adequate, robust and innovative finance to oil the wheels of adaptation and mitigation.

This is more pressing for developing and low-lying island states, which bear the brunt of climate change impacts. Africa, the most vulnerable continent, is set to face far reaching socio-economic impacts on all sectors including agriculture, health and urbanisation. Addressing Africa's adaptation needs starts with limiting global warming to 2 degrees Celsius or lower, as adaptation costs escalate with greater warming. But even with adequate mitigation, current climate finance commitments are inadequate to cover the adaptation costs of Africa and the rest of the world.

The United Nations Environment Programme's (UNEP) Africa Adaptation Gap Report calculates that adaptation costs for Africa could amount to about USD350 billion per annum by 2070 should global temperatures exceed 2 degrees, as against USD150-200 billion in a 2 degree world. Least Developed Countries and Small Island Developing States are likely to have additional adaptation needs, and unless adaptation measures are put into place timeously, the adaptation gap will grow significantly.

Image: Rehana Dada



Drought this year has already resulted in crop losses across South Africa

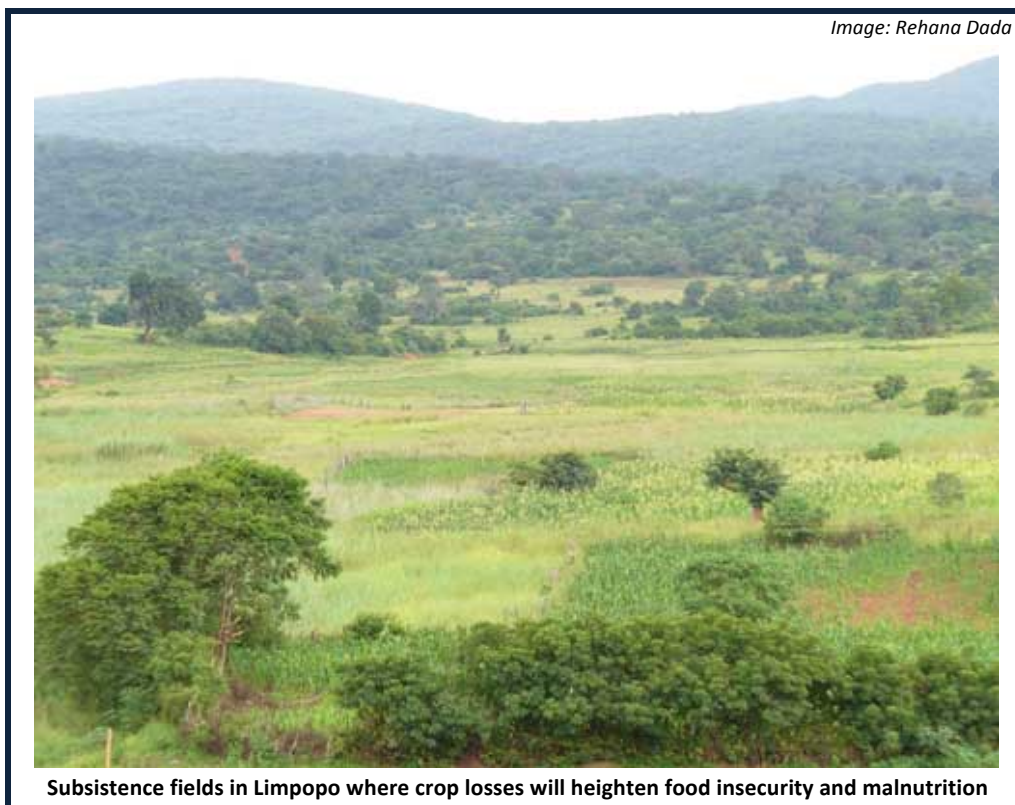
This year the South African government had to cough up USD 26 million to mitigate drought impacts in KwaZulu-Natal alone, even as other provinces are being declared drought disaster areas and joining the queue for financial assistance. The current drought is attributed to the El Niño phenomenon that affects weather systems globally, resulting in some areas receiving more rain while others experience drought.

The Southern Africa Regional Climate Outlook Forum (SARCOF) projects that the present El Niño event will peak at the end of 2015 and remain active throughout the first quarter of 2016, resulting in poor rainfall across most of Southern Africa but increased rainfall in northern Tanzania and DRC. This will result in an increase in the number of people who experience food insecurity as food prices rise considerably. Currently 13.4 million people in the region are food insecure. Already there has been a 21 percent reduction in cereal production and availability in the SADC region, attributed to poor weather conditions characterised by late rains, long dry spells, floods and cyclones. Most SADC countries will therefore have to import more cereals whilst others will have to rely on humanitarian assistance during the 2015/2016 marketing year. Other humanitarian costs include higher malnutrition, devastated livelihoods, and forced displacement.

Climate change increases the odds of strong El Niño occurrences due to the influence of warmer seas and shifting wind systems, and organisations such as Oxfam therefore urge governments to cut greenhouse gas emissions to levels that limit warming to a maximum of 1.5 degrees Celsius.

The Africa Adaptation Gap Report indicates the financial costs confronting Africa in the near future as a result of past global emissions are in the region of USD7-15 billion per year by 2020. By 2050 this could escalate to USD50 billion per year for a 2 degrees world, and USD100 billion for a 4 degrees world. Adaptation funds made available so far are well below what's needed.

Adaptation in Africa's context is beyond just money, however, as a sizeable proportion of the population is at risk of undernourishment due to rising food demand and the negative effects of climate change on the continent's agriculture. Warming above 2 degrees would subject more than 50 percent of Africa's population to the risk of undernourishment.



It is this type of picture, painted by such disturbing scenarios, that leads to calls for robust financing of adaptation and mitigation measures to help salvage livelihoods and the advancement of developmental goals.

Even if options currently on the table for revenue generation throughout Africa are realised, there is no indication yet that developing countries' ask of USD100 billion per year by 2020 will be met. Escalating adaptation costs would surpass potential proceeds as early as 2020. This calls for funding to be scaled up so that it is commensurate with the real costs of adaptation.

The finance drums are beating faster and louder as COP21 approaches.

Women's Leadership and Training Programme pre- and post-COP21

By Sibongile Mtungwa

Adaptation Network member, Women's Leadership and Training Programme (WLTP) engages in activities related to climate change adaptation in southern KwaZulu-Natal and KwaMashu in Durban. As part of its COP21 activities, the organisation is engaging in awareness raising about climate change and adaptation domestically, and in civil society processes that will take place in Paris. WLTP works with young women and, through a partner organisation, Inhlabamkhosi Young Men's Organisation (IYMO).



In the communities where WLTP is active, waste management and water are big issues for all the girls, young women and young men. Water shortage is a regular factor of life, even before the present drought. Right now community members in Hlokozi are dependent on water tanks. The lack of potable water is causing tensions, and lack of rain is taking a toll on the organic food gardens and indigenous and fruit trees that were planted during the past three years. The drying streams are polluted with domestic waste, with disposable nappies being the biggest problem, as reported after the stream clean-ups conducted by the girls and youth in all the areas. Springs and wells that were the main source of water before water was piped into the communities are now deserted and neglected.

Sibongile Mtungwa and Marilyn Aitken conducted a two day Training of Trainers at Umgeni Valley Nature Reserve, in Howick for four WLTP senior staff, six teenage girl trainers, and three staff members of IYMO. The aim of the training was to equip the participants with facilitation skills and knowledge that will help them to work with pre-teen girls, teenage girls, young women and boys on climate change and water during the December holidays.

The trainers came out of the workshop confident and motivated to work on climate change. "I am now aware of developing the best code (a Freirean problem-posing facilitation tool), and to simplify the material for the group so that they can take their own decision about the matter," said Thobile Khumalo of KwaMashu. "In the past I have found it difficult to understand and explain the 1.5 and 2 degrees when it comes to climate change and the Earth's temperature rise, but now I am clear what it means and I will be able to explain it to the groups during workshops," said WLTP staff member, Nobuhle Mbothwe.



The trainees will develop plans of action as to how they will pass on knowledge to their families, peers and communities, and in 2016, to their schools. They will also embark on a campaign to raise awareness about how climate change is affecting water, health, food security and spirituality. WLTP members have a good working relationship with the traditional leaders in their communities are inviting them to join the various activities planned for 2016.

To start off with, the trainers and some community members will make a pilgrimage to the uMngeni Vlei, which is the source of arguably the most important river in KwaZulu-Natal, the uMngeni, and has recently been declared a Ramsar site or wetland of international importance. They will report back to the 240 young people who intend being involved in the campaign, and all will be encouraged to visit the sources of streams in their own areas. Stakeholders, including traditional leaders, church leaders and women leaders will be informed about the findings of the water sources visits. WLTP then intends to facilitate a way forward for protecting the streams and rivers. As part of the campaign, talks and rituals will be held at ten water sources in the various communities.

Selected community members living along the streams and rivers will be trained as water custodians. They will monitor the streams and rivers and educate against littering and other forms of pollution. The intention is for water committees in each area to be empowered to work with girls, young women and youth to make sure that the streams and rivers are kept clean by reporting to the ward committees and municipalities about the status of water, and reporting any leaking pipes or damaged water sources. Social media will be used to inform group members and stakeholders about activities.

Sibongile Mtungwa and four WLTP members will also be engaging in civil society processes during COP21.

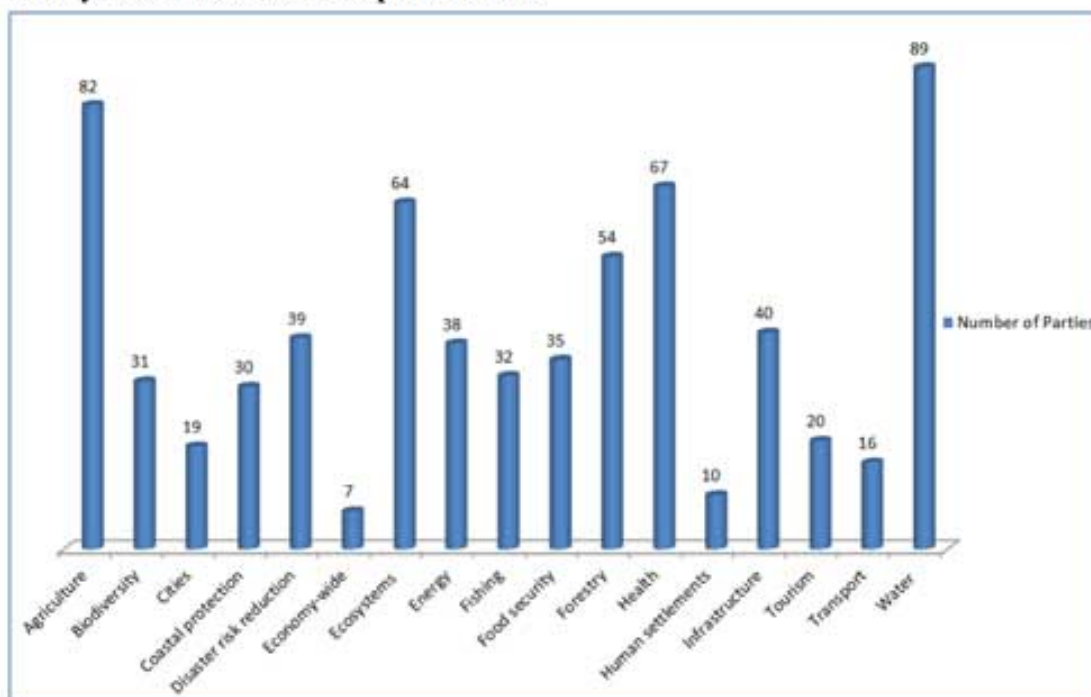
Synthesis report on aggregate effects of INDCs

By Rehana Dada

In late October the UNFCCC Secretariat released a synthesis report on the aggregate effects of 119 INDCs* submitted by October 1st. Of the INDCs analysed, 100 included an adaptation component, and of these 46 were from African states. Because of methodological uncertainties, it was not possible to evaluate the aggregate effect of the adaptation components, and for similar reasons, a civil society analysis of the INDCs was also unable to provide suitable comment on the adaptation components. However, the UNFCCC report provides a useful overview and some aspects are summarised below.

Image source: UNFCCC Synthesis report on the aggregate effect of the intended nationally determined contributions, page 61

Priority areas and sectors for adaptation actions



All adaptation components included information on key impacts and vulnerabilities, and there is a clear demonstration that countries are intensifying planning and implementation of adaptation, and strengthening existing adaptation work. All goals and visions presented are “closely intertwined” with developmental objectives such as improvement of living standards, security and human rights. Some countries referred to the Millennium Development Goals and Sustainable Development Goals.

The main concerns identified regarding key climate hazards were flooding, sea level rise and drought/desertification. One party reported disappearance of islands in its territory, many reported stronger weather events and higher risk of glacial outbursts. Some countries have quantified projected loss and damage, and many reported on loss and damage already experienced, as well as loss and damage projected for the future.

Health was a commonly cited priority, with some countries aiming at integrating climate change impacts into the health sector and advancing the adaptive capacity of public medical services. A number of actions relating to water security were included in many INDCs, aimed generally at water conservation, securing supply, and improving allocation. Water storage, desalination and water-saving measures are among the water related actions presented.

Several countries placed involvement with stakeholders, including vulnerable communities, high on the agenda for when planning and implementing adaptation. Synergies are being developed between adaptation and mitigation as part of countries' low emission and climate resilient development strategies.



Some countries are undertaking adaptation with domestic support, but many emphasised the need for receiving international support in line with the Convention (finance, technology transfer, capacity building), and most provided information on the means of implementation needed to support planned adaptation activities. New forms of cooperation were also included, such as South-South and triangular cooperation.

Some countries also referred to elements of social justice highlighting that high risk areas are often populated by the poorest and most marginalised segments of the population. Many countries did recognise that they have made progress in addressing adaptation, some in particular sectors and others in enhanced research and data management.

**INDCs, or Intended Nationally Determined Contributions are communications to the UNFCCC of how Parties to the Convention will address the challenges of climate change after 2020. Aggregating all of the commitments provides an indicative picture of how effectively the governments of the world will be able to address the causes and impacts of climate change.*

News and events

Climate march against destructive coal, Johannesburg, Saturday

On Saturday, 28th November, people are meeting at the West Gate Taxi Rank, Marshalltown to march to the Eskom Regional Offices in Smit Street, Braamfontein. Participants are protesting the poor progress and lack of political will at the climate negotiations. Start time is 10h00 and end time 13h00. The event is organised by Earthlife Africa Johannesburg.

Contact Makoma Lekalakala for more information at makoma@earthlife.org.za

Thunderclap for COP21

Faith groups have set up a Thunderclap for COP21 that will go live at 10am French time on 28 November 2015. You are invited to sign up, and the system will release the message on behalf of all signatories on their Twitter and Facebook accounts at the same time. Partners in the project include the World Council of Churches, Lutheran World Federation, Global Catholic Movement and ACT Alliance. Faith groups are planning a number of events on the weekend prior to COP21.

<https://www.thunderclap.it/projects/34696-cop21-we-need-agreement>

Global Climate March Durban, Sunday

On Sunday, 29th November, people gather on Durban's beachfront to join millions of others around the world in the call for climate justice. The action starts at 10h00 at Sun Coast Casino and ends at Ushaka Marine World. The event is organised by South Durban Community Environmental Alliance.

Contact Des D'Sa for more information at desmond@sdceango.co.za

Decline in Horn of Africa's long rains

A study that used marine sediment cores from the Gulf of Aden to reconstruct regional temperature and aridity of the past 2,000 years indicates a likelihood that global warming will result in progressively less rainfall over the eastern Horn of Africa during the long rains of March, April and May. The study shows that the region is drier during warm climatic conditions and wetter when colder, and that the rate of recent drying is unprecedented in the last two millennia. Global models project that the region will become wetter during the short rains of September, October and November, but this study indicates that any gains will be offset, particularly as the long rains are crucial for crops.

The sediment core also provides evidence that climate shifts can happen suddenly by providing support for a prior theory that the Sahara had dried out about 5,000 years ago, within just a hundred or two hundred years. Results were reached through analysis of chemicals produced by archae and fatty acids from leaf wax of terrestrial plants. The research was conducted by Centre for Climate and Life at the Columbia University Lamont-Doherty Earth Observatory and Woods Hole Oceanographic Institution.

Respite from hiatus?

A study by the University of Bristol shows a lack of substantive evidence for the supposed pause in global warming of the past 12 years or so. The study examined 40 peer reviewed articles published between 2009 and 2014 that specifically addressed the much publicised "hiatus" and found no consistent or agreed definition, starting point, or duration. It also found that the "hiatus" was unexceptional in the context of other trends, and that a "hiatus" will always appear to be present if the sample size is small.

Drought Atlas of Europe

A new atlas, based on tree ring data, maps 2,000 years of drought across Europe and the Mediterranean, adding significantly to the record of long term climate variability over the northern hemisphere. The improved record is important for understanding causes of megadroughts. A paper on the atlas is published in Science Advances.

Credits

Contributors

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Articles do not necessarily represent the views of all Adaptation Network members.

We hope to be able to produce short briefings in the first two weeks of December.

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

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