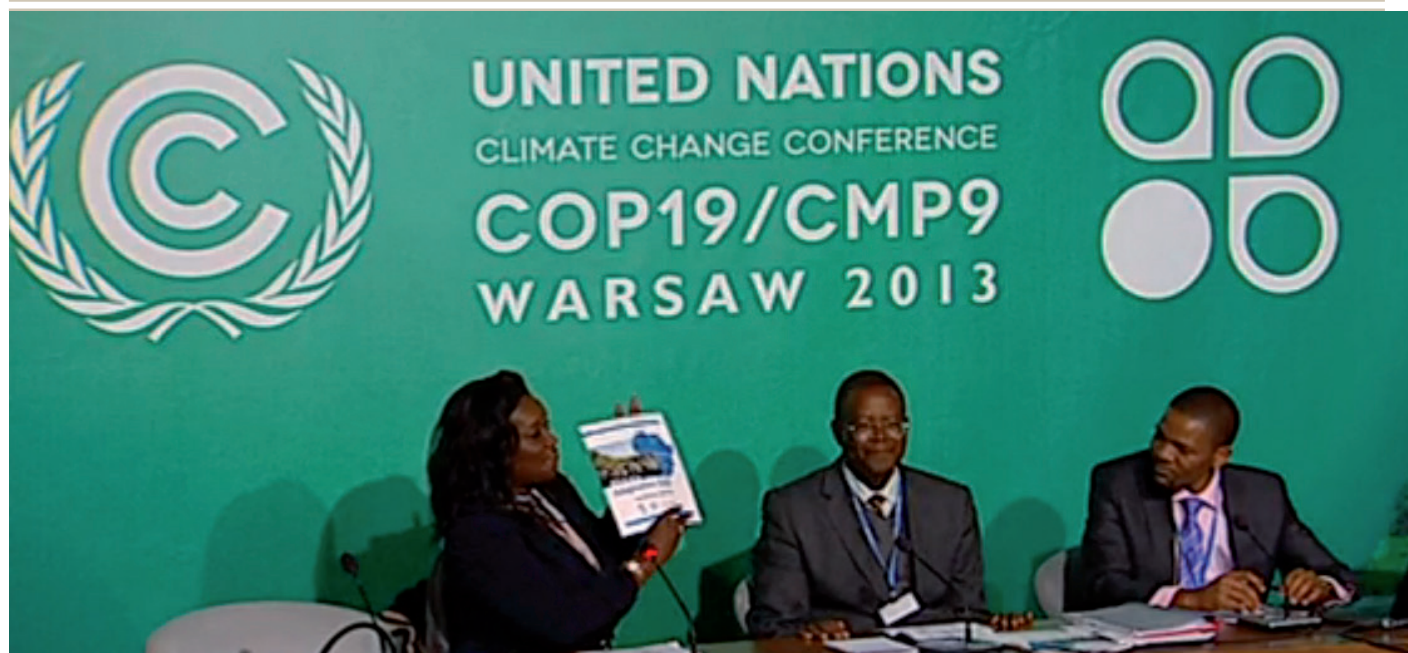


ADAPTATION NEWSLETTER

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Africa Adaptation Gap Report Launched

Highlights

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1. The Africa Adaptation Gap Report investigates the economic costs of adaptation to climate change in Africa.
2. The report was launched during UNFCCC COP19 in Warsaw, Poland, and played a significant role at the 5th Special Session of AMCEN in Gaborone, Botswana, as well as the COP19.
3. African Ministers of Environment used the findings to negotiate the African position on key issues like finance, adaptation, capacity building, adaptation goals etc.
4. The Africa group, led by the AMCEN president, shared a copy of the Africa Adaptation Gap Report with the UN Secretary General, and reiterated adaptation as a priority for Africa.
5. Based on the findings in the report, the Ministers called for an Africa Adaptation Programme.
6. His Excellency Jakaya Kikwete, President of Tanzania and Coordinator of the Committee of African Heads of State and Governments on Climate Change (CAHOSCC), used the findings of the report to make the case for the continent during the opening ceremony of the COP19 high-level segment

THE AFRICA ADAPTATION GAP REPORT:

A call for urgent adaptation action

The African Adaptation Gap Report draws an alarming picture of the impacts of climate change and the accompanied costs of adaptation in Africa.

The report was endorsed by the African Ministerial Conference on the Environment (AMCEN) in Gaborone, Botswana, and it was launched at the Warsaw Climate Change Conference (COP19) in November last year. The launch gained unprecedented interest with more than 500 news media across the world reporting about the launch, as well as more than 5000 people downloading the report by the end of the day after its launch.

The report contributes to progress towards bridging the knowledge gap on the costs of adapting to climate change in Africa. UNEP will start working on the second Africa Adaptation Gap Report for 2014



About the Report:

The Africa Adaptation Gap Report investigated the economic costs of adaptation to climate change in Africa. Adaptation costs could reach approximately USD \$ 350 billion annually by 2070, should the two-degree target be significantly exceeded, while the cost would be around USD \$150 billion lower per year if the target was to be met.

Predictions state that with a 2 degrees temperature increase, the continent will experience a series of extreme heat events during summer months. In a 4 degrees scenario, these heat events will become the new "normal", and will occur at a regular and continuing rate, especially during summer months. Such events are currently classified as highly unusual and are experienced at a more irregular rate.

At a 2 degrees increase in temperatures, 81-97 % of all African plants will experience reductions in range. Migratory species will lose their traditional migratory patterns, and

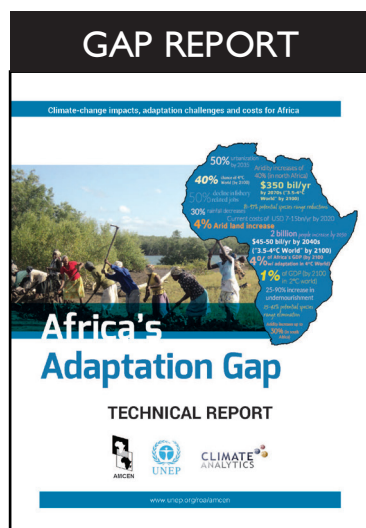
crops that are not resistant to higher temperatures and a drier climate stand in risk of extinction. This includes medical plants and other plants that are crucial for human livelihood.

Agricultural crops are expected to decrease with at least 15-20 %. Some of the staple crops that people and animals depend on for food and feed, such as sorghum, millet and maize, are among the most vulnerable crops.

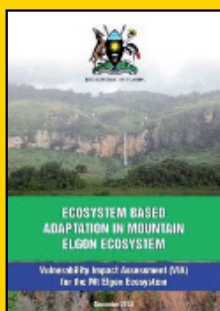
Based on the findings in the report, the Ministers called for an Africa Adaptation Programme. The Africa Adaptation Gap Report investigates the economic costs of adaptation to climate change in Africa.

AMCEN Secretariat will initiate discussions with potential partners regarding the proposed Africa Adaptation Programme.

The full Africa Adaptation Gap Report can be downloaded at: <http://aaknet.org/index.php/component/k2/item/137-africa-adaptation-gap-report>



AAKNET UPDATES



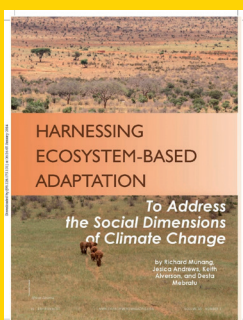
Science forms the basis for adaptation policy and action in Uganda.

The UNEP-UNDP-IUCN collaborative project Ecosystems-based Adaptation in Mt. Elgon in Uganda recently published a Vulnerability Impact Assessment (VIA).

The VIA was conducted to provide scientific evidence of environmental challenges and opportunities at Mt. Elgon. The VIA was launched in Kampala by the Ministry of Water and Environment on the International Day of Mountains on the 11th of December, 2013.

Download the report: <http://www.aaknet.org/index.php/component/k2/item/139-science-forms-the-basis-for-adaptation-policy-and-action-in-uganda>

Newsflash: <http://ebaflagship.org/news/eba-news/393-mt-elgon-ecosystem-vialaunch>



The report **Harnessing Ecosystem-based Adaptation. To address the Social Dimensions of Climate Change** was recently published by UNEP. The report highlights the social dimensions of EbA and how it contributes to empower local communities and build capacity, gender equality and social learning.

<http://www.aaknet.org/index.php/component/k2/item/142-harnessing-ecosystem-based-adaptation...>



COP19: Africa speaks with one voice and calls for increased adaptation action

During the COP19, Africa presented a unified message which emphasized further development of a loss and damage mechanism, finance for adaptation and increased global mitigation efforts. The African Environment Ministers also emphasized the need for the second commitment period of the Kyoto protocol to come into force.

The AMCEN secretariat supported the organization of a number of activities and events in Warsaw. Among them were an AMCEN consultative meeting, the launch of the Africa Adaptation Gap report, Africa Group meetings with the UN Secretary General Ban Ki-Moon and H.E. Mr. Jakaya Kikwete, President of Tanzania and Coordinator of Committee of African Heads of State and Governments on Climate Change (CAHOSCC), as well as an ad hoc AMCEN Bureau meeting.

The consultative meeting was set up at the start of the negotiations to refine the African states' strategy for the negotiations and their engagement with other important

parties and groups. The perspectives were built upon the outcomes of the AMCEN 5th special session on Climate Change in October 2013. President Kikwete expressed satisfaction with the "One Continent, One Voice" strategy of the African negotiators and ministers.

The UN Secretary General Ban Ki-Moon also met with the Africa group. The meeting provided an opportunity for the AMCEN President to re-confirm adaptation as a priority for Africa, and call for an Adaptation Programme for the region. The SG emphasized the need for climate change to be addressed as part of the broader Sustainable Development agenda.

The UN's Adaptation Fund, received pledges of \$100 million during the COP19 negotiations.

Third AfriCAN Climate Awards!

The University of Witwatersrand in partnership with the AfriCAN Climate Consortium, are pleased to announce the call for nominations for the AfriCAN Climate Awards.

This third award focuses on promoting female African scientists doing research in climate change adaptation and/or mitigation in an African context. The award is an initiative of the 7th Framework Programme of the European Union.

Nominations for the award close on the 24th of February 2014. For more information about the requirements and the award, visit www.africandclimate.net/



Marginality: Nexus of Poverty, Exclusion and Environment

From acclaimed resource economists Joachim von Braun and Franz W Gatzweiler come a new open-access book on the nexus of Poverty, Exclusion and Ecology. Free to anyone, online anywhere!

The book is available to read online. [Click on the book.](#)



Crowdsourcing agricultural biodiversity in Tanzania

Bioversity International's **Seeds for Needs initiative** works with farmers to study how agricultural biodiversity can help minimize the risks associated with climate change.

The Seeds for Needs initiative is encouraging farmers to add more varieties and crops to their portfolio to build adaptable farming systems and increase their resilience to cope with climate change. Having a higher diversity on farms will spread the risk of crop failure when there is less rainfall or temperatures are becoming higher.

In the dry areas surrounding Dodoma, Tanzania inadequate rainfall, increased temperatures and a high occurrence of pests have large impacts on people's livelihoods and can lead to food shortages. Farmers, threatened by these impacts, harvest their crops before they are fully grown to overcome hunger (e.g. 'green harvesting'). Others deal with a shortage of food by making and selling charcoal, collecting wild fruits and vegetables and engaging in off-farm employment.

Bioversity identifies a variety of diversification needs and opportunities and is studying local vulnerability to

climate change. In Tanzania, farmers are testing over a 100 varieties of sorghum, cowpea and pigeon pea to discover which varieties best suit their needs. Based on this information and data from trials on research stations the seeds that have the highest potential for local adaptation can be selected.

Using new technologies and a participatory approach lets smallholder farmers identify which varieties of crops suit their preferences. Through modeling it can be determined how well crops perform in future climatic conditions. By using small environmental sensors called iButtons, local weather can be measured in farmers' fields.

Based on the results of the first phase of the research varietal diversification strategies will be designed. Using a crowdsourcing approach, a set of 20 varieties was spread to a large group of farmers to find out how varieties perform in local environmental conditions. As a result farmers are more aware of the different varieties that are available, they have better access to locally adapted seeds and are able to use diversity to plant more wisely and more timely.



Left: Sorghum accessions from the National Genebank in Kenya in a trial field in Tanzania.

Right: Participant in focus group discussion - Zepisa, Tanzania

Mozambique and Rwanda: Climate Adaptation Related Priorities Included in Budget Processes

One of the key strategies employed by PEI Africa is to work in close collaboration with Ministries of Finance in order to influence budget processes and thereby increase the budgets for pro-poor environmental sustainability and climate change issues. Recently, PEI Africa has worked with the Ministries of Finance in Mozambique and Rwanda to put in place mechanisms to improve financing for adaptation initiatives that address poverty, climate change, and environment issues.

The examples from Mozambique and Rwanda demonstrates the increased importance that Governments place on sustainability as a vehicle for poverty reduction and development as well as the important catalytic effect that Poverty Environment Initiative (PEI) has had in improving public sector financing for environment and adaptation to climate change.

Rwanda completed its second Public Expenditure Review for Environment and Climate Change in December 2013 supported by PEI. The review found that since 2004 the country's expenditure on the environment and climate change has increased from 0.4 to 2.5 %. This comes as a result of improved sector engagement in environment and natural resource related issues and the reintroduction of the annex on environment and climate change in the National Budget Call Circular, processes supported by PEI, as well as

the operationalization of the national fund for environment and climate change (FONERWA). The UK Department of International Development (DFID) committed 22 Million GBP towards FONERWA, ensuring funding for poverty-environment and climate adaptation related projects.

Mozambique carried out an Environmental Economic Analysis of Natural resource Management and a Public Environment Expenditure Review (PEER) with the support from PEI. The assessments found that the yearly economic loss due to environmental degradation and inefficient use of natural resources amounted to 17% of GDP and yet the average environmental expenditure was only 1.4% of GDP from 2007 to 2010.

Following the strategic dissemination of the findings in 2013 the Ministry of Finance

appointed for the first time two environmental focal points who are actively following up on key recommendations from the PEER.

As a result the Ministry of Finance has opened up a new budget classification code related to climate change in the 2014 budget process. Furthermore, the Ministry of Environment has decided to test the feasibility to use a wider range of the available codes, including codes related to land management and physical and environment planning.

Generating information to effectively track environment and climate expenditure is instrumental not only for accurate accounting and identifying investment gaps for sustainable environment and natural resource management, but also for the potential of accessing global climate funds to bridge these gaps and fund adaptation activities.



UNDP-UNEP Poverty Environment Initiative (PEI), Rwanda

The Poverty-Environment Initiative (PEI)

The Poverty-Environment Initiative (PEI) of the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP) in Africa supports 9 country-led efforts to mainstream poverty, environment and climate change linkages into national development and sub-national development planning, from policymaking to budgeting, implementation and monitoring.

BRIEFS

African Union declares 2014 Year of Agriculture and Food Security

The AU hopes that by giving high-level focus to the issues of agriculture and food insecurity, it will encourage countries to increase food security, reduce poverty, promote economic growth and create wealth through agricultural advancement. The AU calls on all member States to strengthen the policy environment and to help spur national, regional and international investment in agriculture.

[Read more here.](#)

All Africa Conference on Animal Agriculture announces: Second and Last Call for Papers

The overarching aim of the conference is to provide an opportunity for African scientists and the broader stakeholder groups in the livestock sector to discuss the potential role of animal agriculture to improve the livelihoods of African people.

More information available at: <http://www.aacaak.or.ke/docs/Conferencecall.pdf>



Climate Change Impacts on Ecosystem Services and Food Security
in Eastern Africa

Increasing Knowledge, Building Capacity and Developing Adaptation Strategies



School Art competition on The international Mountain Day 2013, Moshi, Tanzania

Developing Research-based Adaptation Strategies

The Climate Change Impacts on Ecosystem Services and Food Security in Eastern Africa (CHIESA) is a four-year research and development project aimed at increasing knowledge on the impacts of climate change on ecosystem services in the Eastern Afrotropical Biodiversity Hotspot (EABH). CHIESA is funded by the Ministry for Foreign Affairs of Finland, and coordinated by the International Center of Insect Physiology and Ecology (ICIPE) in Nairobi, Kenya.

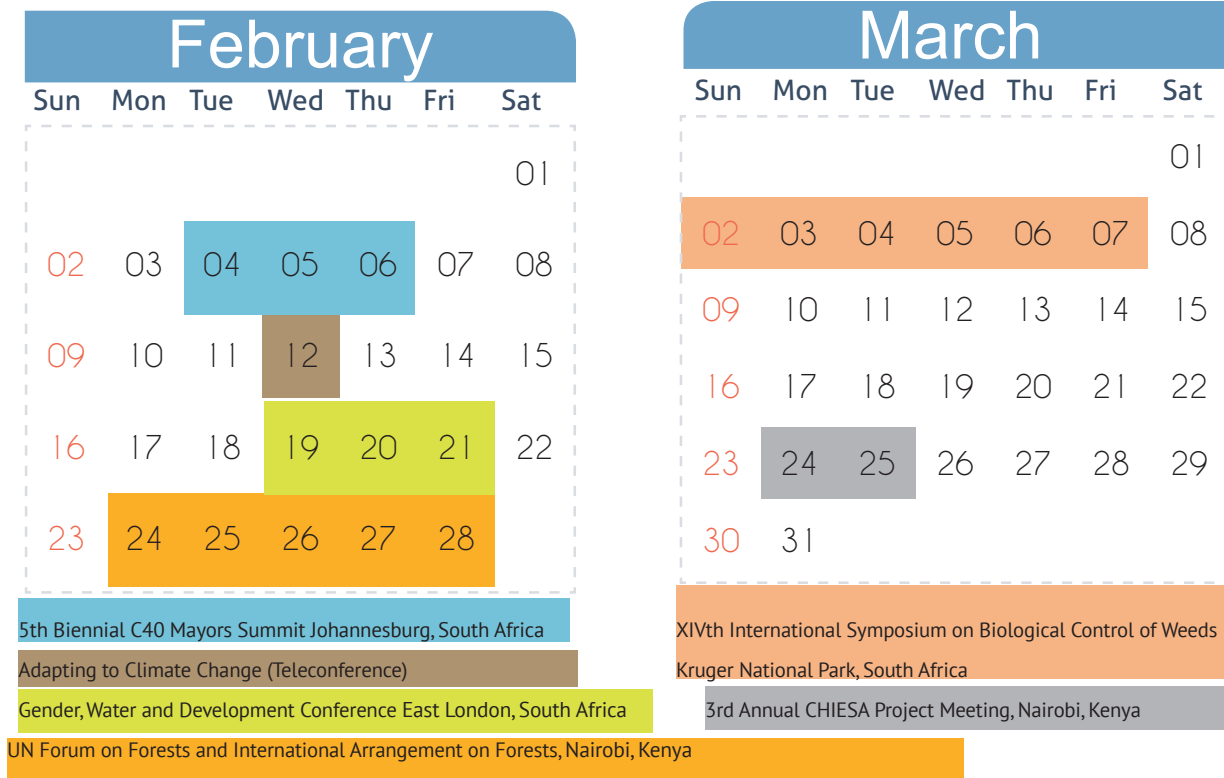
The project helps build the climate change adaptation capacity of East African research institutions, stakeholder organizations and decision-makers through research collaboration and training. Together with local communities, the project develops, tests and disseminates climate change adaptation tools, options and strategies at the farm level.

CHIESA also provides researcher training for staff members of the stakeholder organizations, enhances monitoring and prediction facilities by installing Automatic Weather Stations, and disseminates scientific outputs to various actors from farmers to policy makers.

CHIESA places a high value on information sharing because "research cannot be undertaken in a bubble". Throughout its project cycle, CHIESA endeavors to engage likeminded individuals, organizations and research institutions in sharing research milestones and project results. CHIESA welcomes insight and interaction on all matters climate change and food security.

Please engage at chiesa.icipe.org/

Climate Events and Conferences across Africa



Climate Warnings

USAID's Famine Early Warning System (FEWS net) provides an alert system for climate-related warnings that are expected to affect food security in the African countries. For more information visit fewsn.net.

Niger

Increased food insecurity is expected as cereal crops deplete.

Nigeria

Prolonged dry periods are expected to result in below average harvests while many households are still recovering from last years' floods.

Malawi

Already battling high food insecurity, Malawi may now experience a delay in the planting season.

Madagascar

Due to the aftermath of Tropical Cyclone Haruna and poor rainfall in the 2012/2013 growing season, at-risk populations in the coastal areas are expected to have limited access to staple food crops (rice and maize).

Sudan

Harvests are expected to be 20-30% lower than national average due to poor rainfall, insecurity and pest outbreaks (grasshoppers and birds).

Somalia

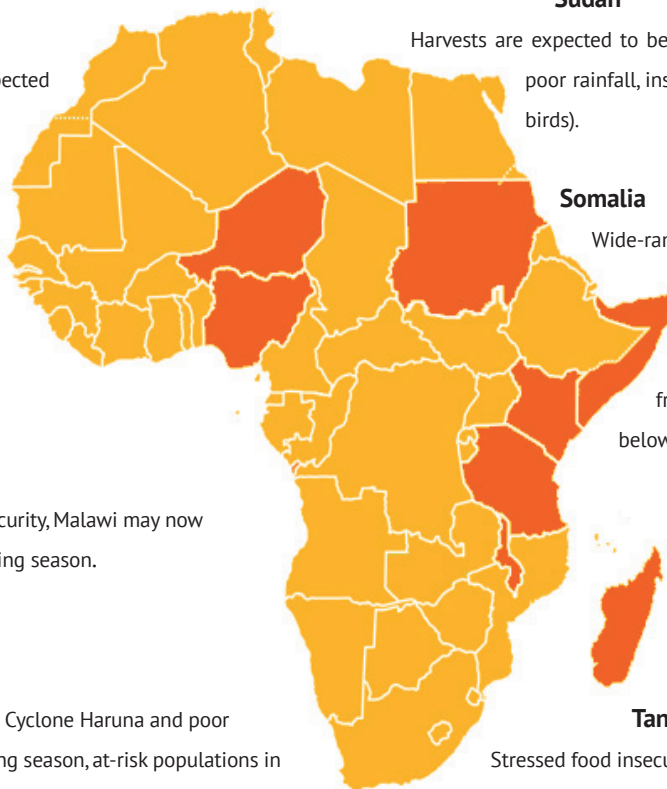
Wide-ranging river flooding will impact Deyr crops in some regions, while Tropical Cyclone Three damages will have impacts on aquaculture infrastructures. Finally a prolonged dry spell from October to December is likely to lead to below average harvests and crop failures.

Kenya

Due to inadequate rains, a below average harvest is expected in Southeastern areas in February

Tanzania

Stressed food insecurity is due to last from January to March as Vuli production was impacted by poor rains.



PUBLICATIONS FROM AAKNet

Africa Adaptation Gap report<http://www.aaknet.org/index.php/component/k2/item/137-africa-adaptation-gap-report>**The Social Dimension of Ecosystem-based Adaptation**<http://www.aaknet.org/index.php/component/k2/item/135-the-social-dimension-of-ecosystem-based-adaptation>**Harnessing Ecosystem-Based Adaptation - To Address the Social Dimensions of Climate Change**<http://www.aaknet.org/index.php/component/k2/item/142-harnessing-ecosystem-based-adaptation-to-address-the-social-dimensions-of-climate-change>

PUBLICATIONS FROM INTERNATIONAL SOURCES

The Demography of Adaptation to Climate Change<https://www.unfpa.org/public/home/publications/pid/13218>**Building resilience: integrating climate and disaster risk into development - the World Bank Group experience**<http://documents.worldbank.org/curated/en/2013/11/18513435/building-resilience-integrating-climate-disaster-risk-development-world-bank-group-experience-vol-1-2-main-report>**Feeding the World, Caring for the Earth:**<http://www.familyfarmingcampaign.net/noticias/ver.asp?id=en&pag=&Nnoticia=443120515>**The Climate Casion read an excerpt here:**http://yalepress.yale.edu/yupbooks/excerpts/9780300189773_nordhaus_excerpt.pdf**Spare a minute for the AAKNet Survey**[click here](#)

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Pastoralism and ecosystem-based adaptation in Kenyan Masailand: <http://blog.worldagroforestry.org/index.php/2013/06/12/ecosystem-based-adaptation-a-buffer-for-pastoralists/>

How farmers perceive and cope with bowalization: A case study from West Africa <http://www.sciencedirect.com/science/article/pii/S0264837713001932bit.ly/1faQwK7>

Multi-level participatory design of land use policies in African drylands: A method to embed adaptability skills of drylands societies in a policy framework <http://www.sciencedirect.com/science/article/pii/S0301479713006956>

Co-investment paradigms as alternatives to payments for tree-based ecosystem services in Africa <http://www.sciencedirect.com/science/article/pii/S1877343513001462>

Pricing rainbow, green, blue and grey water: tree cover and geopolitics of climatic teleconnections <http://www.sciencedirect.com/science/article/pii/S1877343513001383>

Integrated Landscape Initiatives for African Agriculture, Development, and Conservation: A Region-Wide Assessment <http://www.sciencedirect.com/science/article/pii/S0305750X13001757>

Effectiveness of ecosystem-based approaches for adaptation: review of the evidence-base: <http://www.environmentalevidencejournal.org/content/pdf/2047-2382-1-13.pdf>