

NVAS Africa day 2018

Responding to climate change in Africa



Program booklet



Schedule NVAS Africa day 2018

Time	Activity	Room
9.30 - 10.00	Coffee & tea	Lobby
10.00 - 10.10	Welcome & opening by Dr. Felix Ameka, chair of NVAS and Bart Geenen (WNF)	Neushoorn
10.10 - 10.20	Introduction of the day and program by moderator Dr. Karin Nijenhuis	Neushoorn
10.20 - 11.00	Keynote Bart Geenen (WNF) Climate change impacts in Southern Africa	Neushoorn
11.00 - 11.15	Moving to panel sessions, short coffee & tea break	
11.15 - 12.45	Panel 1: Climate Change and Technology (by Dr. Niels Raes)	Panel 2: Rural Communities and Livelihoods (by Prof. Marja Spierenburg)
		Panel 1 PB/Olifant Panel 2 Neushoorn
12.45 - 14.00	Lunch	
13.15	NVAS Annual General Meeting (AGM)	Information market
		Lobby + Neushoorn

Time	Activity	Room
14.00 - 15.30	Panel 3: Urban sustainability and migration (by Prof. Ton Dietz)	Panel 4: Nature conservation (by Dr. Nikhil Advani)
		Panel 3 PB/Olifant Panel 4 Neushoorn
15.30 - 15.45	Moving to plenary session, short coffee & tea break	
15.45 - 16.00	Plenary feedback session on the panels led by Dr. Karin Nijenhuis	Neushoorn
16.00 - 16.45	Keynote Prof. Marja Spiereburg (Radboud University) Protected areas, climate change and food security: who is paying for our sins?	Neushoorn
16.45 - 17.00	Wrap-up by Dr. Felix Ameka	Neushoorn
17.00 - 18.00	Drinks	Lobby

Information market

During the breaks the information market can be visited. Organizations present:

- Acacia waters
- Afrika Studiecentrum
- PENHA (Pastoral and Environmental Network in the Horn of Africa)
- WNF

Panel 1: Climate Change and Technology

Panel chair: Dr. Niels Raes

Building Farmers' Resilience to Climate in Africa through Upscaling Climate-Smart Agricultural Innovations: Lessons from Southern Africa - Presented by O.C. Ajayi

Smallholder agriculture in Africa is dependent mainly on rainfall. As a result, food security, nutrition and income of smallholder farm families oscillates between "boom" and "burst" depending on the vagaries of the weather. This trend is particularly acute in the southern African region due to its mono-modal rainfall regime (one rainy season per year). As a result of the high vulnerability to climatic change; smallholder farmers' livelihood is essentially tied to the weather. Although some innovations exist that could help smallholder farmers in the region to cope with climate change, farmers have poor access to these existing adaptation solutions. To address this challenge, CTA entered into partnership with several organizations including government departments (agricultural extension and meteorology services), farmers' organizations, and private companies (agricultural insurance and telecommunications) to *scale-up climate-smart agricultural solutions for smallholder farmers in southern Africa - Zambia, Malawi and Zimbabwe*. The expected impact is to improve agricultural productivity and adaptation for 140,000 smallholder farmers over a two and half-year period through digitalization, ICT-enabled extension and innovative partnership models to upscale four proven climate-smart agricultural (CSS) solutions for farmers. Specifically, it contributes to increased (i) uptake of weather based insurance, (ii) access to ICT-enabled weather information services, (iii) access to drought tolerant seeds and, (iv) diversification into crop-livestock practices. Field level activities are concurrently supported by actions that facilitate the engagement of stakeholders in policy activities that could trigger widespread adoption of CSS by farmers at national and regional levels. This work will present results of the first year of operation, lessons learnt about partnership models to scale up CSS, and engagement with the private sector and policy to support climate resilience. The potential for scalability in other parts of Africa are also highlighted.

How to achieve sustained change to restore the Lake Victoria ecosystem - from water hyacinths to biofuels in Kisumu, Kenya - Presented by Dr. Victor Langenberg

Anthropogenic pressures pushed the once productive waters of Winam gulf, in the Kenyan part of Lake Victoria, into a degraded system dominated by nuisance macrophytes (water hyacinths) and blue green algae blooms, affecting water intake, lake transport and logistics, fisheries, hydropower production and tourism. Various donor-driven approaches taken in the past decades to remove water hyacinth were only effective for a limited period of time.

A recent approach aims to make the large-scale harvesting of water hyacinths attractive to local actors by processing them into biofuels - creating profit, jobs, clean fuel and improved fisheries conditions. This paper uses concepts of multilevel and multifactor governance to analyze the functioning of this approach. Important factors found are the fact that returns are realized for all relevant actors, that actors commit to long-term involvement for joint learning, and the coordination between the local governance structure and

an overarching national governance structure for knowledge sharing, replication and up-scaling elsewhere in Lake Victoria basin.

Acacia Water B.V. – Presented by Dr. Arjen de Vries

Acacia Water is a company that aims to improve the sustainable use of scarce water resources by the development and implementation of adaptive and inclusive methods and technological solutions that allow the communities to face the uncertainties and challenges driven by climate change. One of our main focuses is on the implementation of water Recharge, Retention, Reuse (3R) projects in (semi-) arid regions. To increase water availability for consumption, rainwater can be harvested to recharge soil water content, groundwater reservoirs and surface water reservoirs. The goal is to avail more and higher quality water. With this method, even in areas receiving limited quantities of precipitation, such as for example northern Kenya, water supply can be improved to meet domestic, livestock and crop water demand. A specific 3R-solution is the storage of water in the sand river bed of so-called sand rivers - ephemeral rivers characterized by a bed that is filled with several meters of (coarse) sand that crisscross (semi-)arid lands. This bed forms a so-called aquifer, a shallow groundwater reservoir that is recharged every time the river flows. Through low-cost technologies water can be abstracted from this aquifer for, for example, irrigation purposes. Acacia Water is currently conducting investigations on how to develop such irrigation package for sand rivers in Mozambique. Similar low-cost technologies could be used elsewhere as well.

Acacia Water aims to share practical experiences on how to develop methods that suit the specific geological, hydrological, social and economic contexts in Africa's semi-arid lands.

The current state of use and adaptation of green building rating system in Africa – Presented by Saul Nkini

In recent years, Green Buildings and Green Building Rating Systems (GBRS) have been promoted in Africa as relatively the most effective means to reduce adverse environmental impacts linked to buildings and occupants. However, despite the primacy of this novel subject, no sufficient studies have been conducted to generate research-based knowledge, particularly on the African perspectives. This study endeavored to bridge the knowledge gap, by discussing the current state of use and adaptation of GBRS in Africa. In terms of its methodological approach, the study deployed the data from published databases of GBRS, the rating scheme technical manuals, official website pages of the Green Building Council, GBRS and scientific literature. The study covers mainly four most adopted GBRS in Africa, namely LEED, Green Star, BREEAM and Green Mark. The results indicate that 22 out of 54 African countries, have applied at least one GBRS, leading to a total of 427 certified buildings. Additionally, the use of GBRS has contributed to mitigating the negative consequences of climate change and natural environment. For example, buildings certified by Green star SA have reduced energy consumption from 30 - 40%, water from 20 - 30% and GHG emissions from 30 - 40% when compared to conventional buildings. Moreover, the adaptation of GBRS like BREEAM, LEED, Green Star and Green Mark use different approaches in the local context during the rating process. These include for example, adjustment of weighting categories, flexibility, regional priority and tailoring credits favorable for local context climates. Finally, it is hereby suggested that the existing GBRS should be flexible enough in order to be adapted to different African contexts with a view to enhancing sustainability of buildings.

Panel 2: Rural Communities and Livelihoods

Panel chair: Prof. Marja Spiereburg

Discourses of adaptation to climate change – Presented by Dr. Sara de Wit

In this paper, I explore an alternative approach to adaptation to climate change by treating it as a globally constructed discourse, which is continuously coproduced and reshaped by varying actors along its journey to rural communities. By tracing “Adaptation to Climate Change” (ACC) as a travelling discourse along multiple encounters and negotiation arenas, this paper wishes to explore the epistemological and political challenges that are entailed by this *narrative in the making*. Based on fourteen months of multi-sited ethnography carried out between 2012 and 2013 in Maasailand (northern Tanzania), it will be demonstrated how this travelling idea brings longstanding tensions to the fore that exist between Maasai agro-pastoralists and the Tanzanian government. Whereas the government portrays the pastoralists in the debate both as victims as well as perpetrators of a changing climate, the grassroots organizations and NGOs representing the pastoral communities, contend that the Maasai are rather *masters* of adaptation. They argue instead that it is not climate change they fear, but their own government that continues to sell land in the name of wildlife conservation. It will be shown how the ACC paradigm is wholeheartedly embraced by several actors along its journey until it reaches the rural village of Terrat, where it is by and large rejected. As such, it focuses on the power dynamics and politics that are revealed by the translation that characterize the emergence of this nascent discourse in Tanzania. By revealing Adaptation’s complex translation journey from global to local platforms this paper gives insight into potential discrepancies that arise between globally drafted policies and local realities. Finally, it will be argued that because adaptation means different things to different people more attention needs to be paid to the ways in which adaptation policies are brought into being, and the politics that underpin them.

Mobilization of large-scale investment for land restoration in the Sahel: An historic opportunity to address the complexity of local land governance? – Presented by Dr. Elly Rijnierse

Land degradation as a consequence of climate change is mentioned in many policy reports as a major driver of both regional and international insecurity and the migration crisis in the Sahel. This has sparked political interest and funding by European donors for land restoration efforts, which should equally contribute to carbon sequestration in line with climate policy objectives. Nevertheless, to date projects do not reach the anticipated scale to really make a difference and they fail to tackle local land governance challenges. Does the heightened interest for large scale land restoration create a political momentum to draw the attention to the complexity of effective local land management?

The focus for this presentation is the question how conditions for effective and sustainable land governance can be created, so that already available or new investments in land restoration and climate change adaptation effectively contribute to stability, enhanced climate resilience and to inclusive and sustainable livelihoods. Solutions are searched for how to engage local communities and how this relates to the ongoing debate on the rehabilitation of customary law and traditional political systems. Simultaneously, attention will

be given to the impact of existing and potential future large-scale investments in land restoration and climate adaptation on local land governance and under which conditions these could contribute to building inclusive and sustainable livelihoods. Whether enhanced stability leads systematically to decreased international out-migration remains an open question.

How do African fishers look at climate change? Exploring perceptions of the role of climate change in the Nile perch fishery at Lake Victoria - Presented by Dr. Karlijn van den Broek

The Nile perch fishery supports the livelihoods and protein availability for 4 million people and represents a vital economic contribution to the region. Experts advise that the flourishing of the Nile perch hinges on a delicate balance of the ecosystem of Lake Victoria, which is under threat due to climate change. However, climate change is only one factor in a complex web of influences on the Nile perch stock including compliance to fishing regulations, water quality, overfishing etc. So how do local fishing communities make sense of this? These perceptions of climate change have received little research attention in the region although they are important as they motivate climate action and support for climate change policy.

This presentation will provide an illustration of Tanzanian fishers' perception on climate change in relation to the Nile perch fishery based on two different studies. Interviews were conducted with 30 fishers and the data show how they talk about climate change. The findings of this study show that climate change is interpreted in local terms and is on a short-term basis. The perceived role of climate change on the fishery was assessed by having the fishers draw the perceived process that affects the fishery. Results show the perceived role in the process and how important fishers think climate change is for the future of the Nile perch fishery. These findings therefore suggest that climate action may be stimulated by focusing on the impact of climate change on the fishery, an issue that hits more close to home for many communities at Lake Victoria.

Panel 3: Urban sustainability and migration

Panel chair: Prof. Ton Dietz

Climate Justice and the activities of Friends of the Earth – Presented by Bert van Pinxteren

Africans respond to climate change in several ways. One way is the civil society response: the response by citizens, mostly part of educated urban society, to form indigenous initiatives (non-governmental organisations, study groups, lobby groups) that try to address environmental issues, including the climate change agenda. This can be through attempts at influencing national bodies and international organisations, citizen awareness raising campaigns or climate change preparation and mitigation activities.

This presentation will highlight civil society response as organised within the Friends of the Earth (FoE) network. Friends of the Earth is the world's largest grassroots environmental network, made up of 75 autonomous, indigenous organisations from as many countries. 14 of those groups are from Africa, including such well-known organisations as Environmental Rights Action of Nigeria and Justicia Ambiental of Mozambique.

Some of these groups are active in the area of climate change, others are not. At the international level, they collaborate within the framework of the Climate Justice and Energy campaign of Friends of the Earth International. In the analysis of FoE, the climate crisis combines with an energy crisis. They have a political analysis calling for justice; in their view, "unsustainable economic and development models, based on fossil fuels and other destructive energy sources, and the concentration of power over energy goods and services in the hands of the wealthy few, drive these crises." The next Friends of the Earth International Week of Action to fight for Climate Justice is from 6 to 13 October 2018.

In the presentation, I will highlight the work of indigenous African NGOs within the Friends of the Earth network on climate change and in the Week of Action. The presentation will zoom in on one or two groups, for example on the work of Friends of the Earth Ghana.

Ubuntu and the SDGs: relevance for climate-induced migration to the cities in Africa – Presented by Dr. Dorine van Norren

Ubuntu, I am because we are, is an African worldview with a particular cosmology and conception of people and nature. The Sustainable Development Goals aim at combatting climate change but at the same time also tend to perpetuate a modernist discourse. What can the African worldview contribute? In Ubuntu care for the other and for nature is an inherent part of life. Return to indigenous values is key to sustainability issues. At the same time, it can and needs to inspire global discussions to be effective. As long as mitigation and adaptation strategies do not take local context and culture into account, we are devising out of context solutions. South Africa made a modest attempt to integrate Ubuntu in jurisprudence for the social context (e.g. prevention of eviction from housing) but did not apply it to the environmental context. Ubuntu can help reduce climate induced migration. Based on the PhD Development as Service 2017 (a Happiness, Ubuntu and Buen Vivir interdisciplinary view of the Sustainable Development Goals).

Evidence of climate-induced migration in West Africa - By Kees van der Geest

West Africa has been a prominent region for research on the linkages between environmental change and migration. To a large extent, this has been motivated by the great Sahel droughts of the 1970s and 1980s. Most studies start from the assumption that environmental factors, such as rising temperature, increasing rainfall variability, land degradation and periodical droughts, affect people's livelihoods, particularly in rural areas. This chapter provides a review of case studies on the linkages between migration and environmental change in the region, with a focus on drylands. It illustrates that the concepts, methods and results applied differ considerably between the case studies and make it difficult to draw conclusions on the environment-migration nexus. This review shows that even from environmentally fragile areas, people have many different reasons to migrate, which often go beyond risk prevention and adaptation to environmental stress. Many studies find that environmental factors are often not the main driver of migration in the region; instead, individual characteristics, structural conditions, social determinants, better prospects or individual aspirations strongly influence migration decisions and patterns. Nevertheless, temporary migration is a well-established activity to diversify income and the financial support of the migrants is crucial for most households in rural areas. Permanent out-migration of entire households seems to be rare in the region.

Panel 4: Nature conservation

Panel chair: Dr. Nikhil Advani

Are the most valuable resources in dryland areas isolated wetlands? – Presented by Joost Brouwer

In dryland regions wetlands stand out as areas where water and nutrients accumulate, plant and animal production potential is high, and production risk is low. Wetlands are therefore much sought after in dryland regions such as the Sahel. They are more and more intensively used by farmers, pastoralists, fishermen, collectors of natural products, and also wildlife. Economic data from reports on some of the 1,000 isolated wetlands in Niger, presented here, demonstrate this importance to people living at the isolated wetlands as well to people living farther away. In addition, it has been estimated that some 1.2 million water birds from Africa, Europe and Asia are present on Niger's wetlands alone each January the importance of the isolated wetlands is even greater in times of drought. At the same time the isolated wetlands are under threat of disappearing because of increasing human pressure, climate change, land use change in their catchments, etc.. Descriptions of selected wetlands in Niger visited in the mid-1990's and again twelve years later show this, too. Integrated participatory management of wetlands in dryland regions must be effectuated as soon as possible, so that these very important natural resources will be used wisely and sustainably for the benefit of people and biodiversity, and not used up.

Impacts of climate change on biodiversity in the Congo Basin: charting the unknown – Presented by Jaap van der Waarde

Thank you for attending our annual NVAS Africa day, we hope to see you again next year!

