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**COURTING
CATASTROPHE?**

Humanitarian Policy and
Practice in a Changing Climate

Courting Catastrophe Project Report 04

Climate Change Adaptation: The Role and Influence of Humanitarian Interventions towards Response and Prevention of Crises.

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Climate Change Adaptation: The Role and Influence of Humanitarian Interventions towards Response and Prevention of Crises.

Extreme climate change events such as droughts and floods are increasingly affecting people's livelihoods. Traditional humanitarian assistance has primarily focused on short-term relief and recovery in the immediate aftermath of such disasters to facilitate local people's adaptation to climate change. This approach neither addresses underlying causes of vulnerability nor sufficiently supports adaptation to a changing climate. There is therefore need for new and innovative thinking to link short-term emergency responses to longer-term sustainable adaptation. Can different types of knowledge from diverse stakeholders influence long-term climate change adaptation? Dialogue between researchers, practitioners, policy makers among other actors is necessary.

The aim of organizing this seminar was to present and discuss ethnographic findings from an agricultural area in Kenya and a pastoral region in Ethiopia. Additionally, experiences from Malawi were also presented. The parallels and differences in the findings from the above areas were highlighted.

Speakers:

- ❖ **Dr. Lutgart Lenaerts, Postdoctoral Research Fellow, Noragric**
- ❖ **Dr. Andrei Florin Marin, Researcher, Noragric**
- ❖ **Professor Ruth Haug, Noragric**

Brief background about the “Courting Catastrophe? Humanitarian Policy and Practice in a Changing Climate” Project (CCAT).

The project is funded by the Research Council of Norway through the NORGLOBAL/HUMPOL programme. It commenced in late 2012 and is expected to end on the 31st of December 2016. CCAT's partners include; Department of International Environment and Development Studies (Noragric) of the Norwegian University of Life Sciences in Norway, Institute of Development Studies (IDS) of Sussex University in the UK, the Institute of Environment and Development Studies (MU-IEGDS) of Mekelle University in Ethiopia, the Red Cross/ Red Crescent Climate Centre (RCCCC), COMSATS Institute of Information Technology (ICT), The Norwegian Red Cross, The Development Fund of Norway, Nepal Institute of Development Studies (NIDS), the Norwegian Refugee Council, Local Initiatives for Biodiversity, Research and Development (LI-BIRD) of Nepal and Center for International Climate and Environment Research (CICERO) of Norway.

The project has case studies in six countries among which are; Bangladesh, Nepal and Pakistan in Asia and Ethiopia, Kenya and Zambia in Africa.

Findings from Afar Regional State, Ethiopia.

Dr. Lenaerts presented the Ethiopian case study. In Ethiopia, the areas of Afar and Somali region are expected to be hit the hardest by climate change effects. The presenter focused on research findings from Afar Regional State. The research questions focused on during this research and presentation were; “what are the drivers of Afar pastoralists’ vulnerability to climate change?” And “how can humanitarian interventions contribute to sustainable climate change adaptation rather than provide relief after disasters have happened?”

In the Ethiopian case study, research was mainly carried out in two zones of Afar region; Dubti district and Berhale district, plus also parts of Tigray (Kelisha Emni kebele). The seminar presentation tackled findings from research conducted in 2013 in the Aerolav locality that is near a sugarcane plantation, has the Productive Safety-Net Programme (PSNP) and is a resettlement area. The other research was carried out in 2014, in Serdo sub-district. Serdo sub-district has three localities (Serdo, Bergile and Ilawli), has no sugarcane plantation, no PSNP, is not a resettlement area and is risky to Disaster.

Dubti: Major findings

In addition to the project partners in Ethiopia, two Noragric students carried out field work in Afar region as part of fulfilment of their master degree programmes. There were funded by the CCAT project and their findings were included in the presentation;

- *“Adapting to climate change through villagization? The context of sedentary vulnerability in Afar Region, Ethiopia”* by Ane Botterli.

- *“Sustainable adaptation to a changing climate? A case study of the relief and development initiatives by the Ethiopian government and Afar Pastoralist Development Association in Afar Region, Ethiopia”* by Siri Hafstad Eggset.

Sustainable climate change adaptation

Dr. Lenaerts used McCarthy *et al.* (2001) to describe adaptation whereby it can be described as adjustments in practices, processes, or structures to take into account changing climate conditions, to moderate potential damages, or to benefit from opportunities associated with climate change. In this case, adaptation is believed to address broader, socio-economic and political issues and can be a way to challenge and transform the business-as-usual development pathway. Furthermore, Lenaerts explains by using Eriksen *et al.* (2001:8) 's argument that sustainable climate change adaptation is *"adaptation that contributes to socially and environmentally sustainable pathways, including both social justice and environmental integrity."*

Following the five key principles to consider for sustainable climate change adaptation as suggested by Eriksen and Marin (2015), Dr. Lenaerts pointed out examples from the research area and how they fit into these principles as shown below;

1) Describe vulnerability contextually, including multiple stressors such as;

a) Related to sugarcane plantation: there is;

- i. Livelihood diversification
- ii. More labour for women
- iii. Loss of dry season pasture

b) Related to resettlement: there is;

- i. Access to development
- ii. But, services are not yet fully provided

- iii. Loss of migration as adaptation strategy

c) Related to food aid: there is;

- i. Resource sharing mechanisms
- ii. Short term relief (feed aid might provide long-term relief)

2) Acknowledge differing values and interests that affect adaptation outcomes

a) Elders versus youngsters

- i. Irrigation agriculture
- ii. Sugarcane plantation

b) Officials versus local community

- i. Food aid distribution
- ii. Settlement and services provided

c) The state versus local community

- i. Land tenure: pasture versus plantation
- ii. Migration versus settlement
- iii. Afar sultanate versus democracy

3) Suggest how local knowledge can be incorporated into adaptation responses

The following can be (and/ or) is done as a means of incorporating local knowledge into adaptation responses during and after disasters;

a) Migration as adaptation response

b) Forced mating of camels

- i. This is possible with shifting rains

c) Digging wells in group

- i. Water for irrigation
- ii. Water availability close to the plantation

d) Clan leaders to distribute food aid

- i. Shift in resource sharing and power relations

4) Consider potential feedbacks between local and global processes

a) National and global focus on agriculture

- i. Pastoralists settled and practice of irrigation agriculture

b) Land tenure: Land leases for plantations

- i. Dry season pasture turned into plantations

c) Climate resilient Green Economy Strategy

- i. It is highly debated nationally and globally whether abandoning pastoralism is climate resilient.

5) Empower vulnerable groups in influencing development pathways and their climate change outcomes.

Figure 1 Picture showing vulnerable groups to climate change in Afar, Ethiopia



© Lutgart Lenaerts

a) Who are the most vulnerable to climate change?

- i. Women
- ii. Children

- iii. Elderly

b) Education is key

c) Participation is key

- i. There are examples of good practices by Afar Pastoralist Development Association (APDA).

In summary, the findings show that women, children and the elderly are the most vulnerable groups to the critically changing climate in Afar region. This has affected their nutrition, health and livelihoods. Even though there exists aid and support programmes by the government and non-government organizations, there is limited empowerment of the vulnerable groups into development endeavors and the sharing of resources. Due to this, the efforts towards climate change adaptation (particularly by following the above suggested principles) are slower and weaker among the most vulnerable groups of Afar region.

Answers to the research questions

The presenter provided the following responses to the research questions at hand for the Ethiopia case;

a) What are the drivers of Afar pastoralists' vulnerability to climate change?

- i. Regarding the land tenure, the dry season pasture and the possibility of seasonal migration is reduced.
- ii. The distribution of food aid encourages the resource sharing mechanism and does not address the backbone of the people's livelihood and their animals.

- iii. There is so far settlement and agriculture without adequate services.

b) How can humanitarian interventions contribute to sustainable climate change adaptation?

- i. By making sure that there is not only hardware, but also software health, water, agriculture, and education among others.
- ii. Combining food aid and feed aid (this has been happening since late 2015).
- iii. Overcoming sharing of resources in food aid
- iv. Building on and improving local knowledge in the changing climate
- v. Empowering vulnerable groups: Here, education and participation are key.

Adaptation beyond “Rambo crops”: A Political agronomy of improved cassava in Siaya, Kenya.

Dr. Marin presented the Kenya case. The presented findings focused on one main research objective, “ to understand the current context of humanitarian interventions for resilience and adaptation to climate change,” that was divided into four research questions;

- 1) What kinds of climate change knowledge do different local actors have? And what are their priorities/views for adaptation?
- 2) What different types of humanitarian interventions have taken/are taking place in the area? (Focus on main actors that shape interventions on the ground? What

are their respective roles?)

- 3) Who are the actors and networks involved in activities bearing on local climate adaptation and humanitarian interventions?
- 4) How do power relations/interests affect which knowledge is acted upon, promoted?

According to Dr. Marin, the Kenya Red Cross (KeRC) and the Norwegian Red Cross (NorCross) are running a project called “Integrated Food Security and Livelihoods Project” (IFSPL) in Siaya County in Southwest Kenya. The project’s main objective is to contribute to the “improved resilience of 10,000 direct beneficiaries (2,000 households) and 148,000 indirect beneficiaries in the areas of Wagai, Uranga and Boro divisions of Siaya County by 2014.” The specific objectives for the project are;

- 1) Improve cassava/food production by community members
- 2) Strengthen cassava value chain and income generation
- 3) Strengthen community based disaster risk reduction
- 4) Strengthen health and nutritional security of target households

Answers to the research questions

The following responses to the research questions at hand were reported by Dr. Marin. These were depicted from the research results carried out in Siaya, Kenya.

- 1) **What kinds of climate change knowledge do different local actors have? And what are their priorities/views for adaptation?**

The local actors considered while carryout research in Siaya included; farmers,

fishers, local bureaucrats such as agricultural officers, traditional authorities and humanitarian actors. Marin emphasized that there are differences related to contexts in which different actors operate, the world views and actual experiences.

a) Farmers:

The long (Higa chiwiri) and short (Opon) rainy seasons are reported to have tendencies of starting several months later, end one month earlier than normal and are often fewer and more intense. Even after onset, rains can stop for several weeks.

Adaptations:

- The farmers delay land preparation (from January, to whenever signs of rainy season-onset appear) and staggered planting of maize, cassava, and sweet potato.
- Switching to farming cassava as an adaptation to drought.

b) Fishers

Siaya is reported to receive fewer and more intense rains. According to Dr. Marin, intense rains usually bring alluvial nutrients which are the most beneficial to fishing. The long rainy season is good for fishing and bees, termites among others are the food for the fish.

Adaptations:

- Ponds for aquaculture on the edge of the lake. This is hampered by a large-scale land investment on Yala Swamp ecosystem.

As an example, the presenter used the International Centre for Tropical Agriculture (CIAT) 's blog post where Neil Palmer (2012) stated that the agronomy/production of cassava could feed millions of people as it is capable of beating climate change. Cassava is expected to brush off rising temperatures in the sub-Saharan region, therefore leading to increased production, hence food security.

Cassava may tolerate harsh weather conditions, however, factors such as diseases affect its production. In May 2013, it was reported that the major threat to “Rambo” cassava was the rapidly breeding cyanide-munching insect referred to as the super-fly. The fly caused cassava mosaic disease and cassava brown streak disease which destroyed the robust cassava plant, thus threatening food security (The Inside story on emergencies – IRIN, 2013).

Cassava as “Rambo crop”

According to the International Centre for Tropical Agriculture – CIAT, “Cassava is a survivor; it’s like the Rambo of the food crops.” Cassava is perennial, tolerates poor soils, tolerates drought and produces a lot (Jamaica Observer, 2016). However, the above only occurs if the drought befalls after the establishment of plants.

Figur 1 Pictures showing cassava plants in dry soil and harvested cassava roots



©Gold Coast Permaculture

2) How do power relations/interests affect which knowledge is acted upon, promoted?

Political agronomy:

The creation and use of agronomic knowledge and technology relies on certain political, economic and social forces and factors, often conflicting/in tension (Fairhead et al. 2012).

The story (understories) about the “Rambo cassava”

Below are some of the considerations that Dr. Marin pointed out regarding cassava production in Siaya;

- 1) Agricultural services/ Research (KALRO) – developed the varieties (with disease tolerance in mind).
- 2) In order to ensure agricultural extension, there is need to promote cassava sales

from own fields and to rely on local farmers for planting material.

- 3) Different humanitarian NGOs promote cassava for food security and/or climate change adaptation.
- 4) Farmers have mixed motives, limited consumption, different agronomic techniques and different varieties.

From humanitarian action to contested resilience building and adaptation to climate change in Malawi.

Professor Haug presented findings from the Malawi case study. The presentation's focus was on assessing lessons to be learned and factors that contributed towards Malawi moving from recurrent drought and flooding-triggered famines and humanitarian actions to decreased vulnerability and resilience. Haug used the following research questions to present the findings and experiences from the Malawi case;

- 1) To what degree has the Farm/Fertilizer Input Subsidy Programme (FISP)¹ contributed to more production, better food security, reduced poverty among men and women smallholders?
- 2) What role have international and/ or national policies and power relations played as regards running FISP?
- 3) To what degree can lessons learned from FISP be useful in preventing possible climate change-triggered humanitarian crisis to happen in the future

In order to fully explore the above research questions, the presenter used the five key principles for sustainable climate change adaptation suggested by Eriksen and Marin (2015).

1) Describe vulnerability contextually, including multiple stressors

Contextually, the number of climate refugees is increasing worldwide. In Malawi, 85% of the total population lives in rural areas and 50% live under the poverty line. Agriculture is reported to contribute 45% of the national GDP and 85% of

¹FISP is an agricultural Inputs Subsidy programme that was introduced by the government of Malawi in 2005 to improve national food security and boost the productivity of smallholder farmers after several years of drought brought poor harvests. (<http://www.irinnews.org/report/93954/malawi-farm-subsidy-programme-shrinks>).

the country's export earnings. According to Professor Haug, Malawi has experienced seven serious droughts, between 1967 and 2014. Furthermore, flooding affected 1.1 million people and displaced 336,000 people in 2015.

Bellprat *et al.* (2015) reported that climate change is expected to increase temperature leading to more droughts, floods, stronger winds and waves.

In 2015, the Green Climate Fund approved a project that it is funding in Malawi. The project is expected to enhance early warning systems and modernized climate information as part of the disaster risk reduction (Makhiringa, 2015).

Pictures showing scenarios of vulnerability contextually including multiple stressors



©Ruth Haug

2) Acknowledge differing values and interests that affect adaptation outcomes

Professor Haug stated that FISP was being heavily contested and she used the table below to show how it was in favor and/ or against the values and interests that affect adaptation outcomes in Malawi;

IN FAVOUR	AGAINST
Demand driven	Not economic viable
Higher yield	Not environmental sustainable
Socially acceptable	Integrated soil fertility should be promoted
Better food security and reduced poverty	Contested impact on food security and poverty reduction
National ownership	Too politicized buy voters
Leakage at acceptable low level	Too high leakage/ corruption
Other alternatives few and more costly	Will not solve future challenges (climate change adaptation)

3) Suggest how local knowledge can be incorporated into adaptation responses

The presenter used two statements by Malawian leaders as examples of incorporating national/local knowledge into adaptation;

- a) **Bingu wa Mutharika** defended FISP in many fora at Boston University, Mutharika said: *“Western countries say African governments should not subsidize agriculture, Western governments subsidize their own farmers”*
<http://www.bu.edu/today/2010/can-africa-feed-itself/>
- b) **Peter Mutharika**: *“One of the saddest tragedies in most Africans is that we lost faith in ourselves, and stopped believing in ourselves, that we own the capacity to change our situation”*
www.nyasatimes.com/2015/12/06/mutharika-says-malawi-china-cooperation).

4) Consider potential feedbacks between local and global processes

The politics of what happens after disasters and what happens to plan for other disasters is interesting. Malawi is a landlocked country, there is scarcity of land as compared to other Southern African countries. It exports a lot of tobacco and maize. In 2005, the country experienced extreme floods. In 2013, the population experienced scarce hunger and in 2015, there was severe flooding again. Malawi is therefore experiencing significant climate change.

Malawi is also heavily dependent on donor aid. 40% of the country's budget is from donor funding. This has escalated corruption and inequalities. China is

currently among the major donors of Malawi and the Green Climate Fund is established in the country by donors. The Fund is to allow early detecting of disasters.

5) Empower vulnerable groups in influencing development pathways and their climate change outcomes

According to Professor Haug, in order to effectively empower people, it is crucial to identify and / or know who and how to empower. She reported that in Malawi, there are tendencies where people use their votes as power.

Development-wise, people are becoming less poor and less hungry because agricultural productivity has increased to more than double between 1997 and 2014. This has enabled increased food availability and higher real wages. People's assets have improved and a good number (73%) is reported to have an acceptable food consumption level, thus food secure. There are contested numbers showing that poverty is declining. The Malawian government's target is to reach all poverty groups, however, women are still slightly below men recipients.

Professor Haug concluded that in addition to putting the future in mind, the following should be put into consideration regarding preventive measures to calamities and ways of ensuring climate change adaptation;

- 1) Disregard expert and donor advise
- 2) National ownership, priority and prestige
- 3) Power of voters
- 4) Capable institutions
- 5) Enable environment for agricultural development
- 6) Build resilience at local and national level.

Subsidies from the government of Malawi especially fertilizers and seeds may not be currently working for the farmers and the local people. The government provided subsidies earlier, however, this is not the case anymore. The farmers are currently going back to traditional farming methods/ systems. The donors could possibly be more responsible and continue funding the government to supply the subsidies or come up with new strategies.

Seminar Conclusion

As a conclusion from the seminar presentations, it is significant that climate change is happening in the three countries. This is exhibited from the unpredictable rains, floods and droughts among other factors. There are both government and non-government organizations that are providing humanitarian aid, however, it is not sufficient to minimize the various disasters that threaten people's livelihoods and food security in the long-term. There is therefore need for continued support for the local farmers and pastoralists and invention of new strategies that can enable them to adapt to climate change, while incorporating their knowledge and new knowledge.

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