

MANAGING THE IMPACT OF CLIMATE CHANGE ON AGRICULTURE AND RURAL DEVELOPMENT, AND EMPOWERING WOMEN TO RESPOND TO CLIMATE CHANGE

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SYNOPSIS

African rural populations, mostly directly or indirectly relying on agriculture, will be affected by climate change, increasing their vulnerability and enhancing their migration. The brief gives some adaptation and migration tips to tackle climate change impacts on rural societies. It also proposes guidance on how to empower women to respond to climate change, being them involved in large number in agricultural activities and consequently more vulnerable to climate change. The text underlines in its final part the key capacities that need to be built to better deal with climate change in African contexts.

Introduction

Under the auspices of the Africa for Results Initiative (Afrik4R), the African Community of Practice (AfCoP) on Managing for Development Results (MfDR) has held from January 20th to February 7th 2014 an online discussion on “Managing the Impact of Climate Change on Agriculture and Rural Development, and Empowering Women to Respond to Climate Change”. The purpose of this e-discussion was to facilitate knowledge sharing on the topic and most specifically to identify policy issues and learning needs related to MfDR.

Recognized as a fundamental threat to sustainable development and to the fight against poverty, climate change is expected to have severe impacts on agricultural yields over the next decades. Given that most of African populations rely on agriculture, climate change will negatively affect Africa’s economies and livelihoods. Rural populations, mostly reliant on agricultural activities, are dependent on ecosystems that are increasingly being destroyed and/or rendered vulnerable. Climate change has then undeniable effects on

development processes and is consequently at the core of MfDR approaches.

Women constitute the majority of employees in the agricultural sector, producing most of the food consumed locally in Africa. It is therefore important to employ gender sensitive approaches on issues of managing the effects of climate change on agriculture, as climate change impacts differently on men and women engaged in agriculture. To this end, women should be empowered to better negotiate and manage the negative impacts of climate change.

Implications of climate change on agriculture and rural populations

Climate change does not only mean warming and unpredictable changes in rainfall (with loss of irrigation water), but also higher risks linked to increased flooding, extreme heat events, and pests. It thus has the potential to increase the vulnerability of African rural populations, already affected by widespread poverty. Climate change contributes also to destroy infrastructures (including education infrastructure for instance,

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negatively impacting on education performance), with an undeniable effect on trade.

African rural populations, mostly relying directly or indirectly on agriculture, experience yields variations due to climate change. Even if most studies predict that the impacts will vary by region, there will certainly be severe consequences for agricultural production and food security in sub-Saharan Africa, where agriculture is mostly practiced by smallholder farmers, with a more limited adaptive capacity (ACBF, 2012).

Climate change also increases the migration of vulnerable people and groups practicing agriculture as their unique livelihood strategy. Cross-border migration has consequences on African countries, in relation to security issues and regional integration. Migration patterns are also gender-sensitive. In African contexts, it is traditionally easier for men to migrate, in view of the huge social responsibilities that women have in African societies.

It is thus strategic for African countries to build strategies to tackle the impacts of climate change on vulnerable groups and/or contexts. If women, youth, and the unemployed have to be taken into account, remote rural areas have to be the core of the agriculture sector, without necessarily forgetting that urban and peri-urban agriculture has also a very important contribution in Africa, allowing many households to increase their income and diversify their livelihoods strategies, enhancing the overall food security.

Tackling climate change impacts on rural societies: some adaptation and mitigation tips

Agriculture not only contributes to climate change (through emission of greenhouse gases like methane from livestock) but it is also affected by it. Therefore there is a need to promote **climate-smart agricultural techniques** (i.e. proven practical techniques such as mulching, intercropping, agro-forestry, etc.; and innovative practices such as drought- and flood-tolerant crops, risk insurance,

etc.) that address the problem upstream and downstream. To this extent, it is known that Africa has a limited percentage of irrigated land, because until now the cost of extending irrigation has seemed to exceed the longer-term benefits (Bouzaher, Shantayana, and Ngo, 2008). Nevertheless, with the increased threat of climate change, irrigation will most probably become a critical adaptation measure to improve food security and sustain agricultural growth in Africa.

Irrigation and climate-smart techniques also call for increased funding opportunities. Most climate change programs and projects have been until now largely financed by external partners (such as bilateral and multilateral donors, international NGOs, etc.), rather than domestic resources. This makes these projects potentially unsustainable and vulnerable to changes in donor interest, while the mobilization of local resources is still limited. Therefore, there is a need for African decision makers to **encourage local funding** as much as possible to complement or substitute donor's financial flow.

Taping into indigenous African seeds to cope with negative effects of climate change on agriculture is recognized as an effective adaptation strategy. Indigenous seeds, adapted to soil and weather constraints, may in fact help to address climate risks. Indigenous seeds and resources in general (including traditional knowledge) have to be given the necessary importance in defining adaptation and mitigation strategies. Strategies to deal with climate change have to build valuing traditional strategies and indigenous knowledge.

To track climate change impacts, as well as adaptation and mitigation strategies, **Monitoring and Evaluation (M&E) and knowledge management are key**. M&E plays a great role by ensuring that well-defined targets are being pursued and appropriate strategies are implemented. Knowledge management can be used to aggregate and disseminate key lessons learnt to promote knowledge sharing and peer learning. It can facilitate the dialogue between policymakers

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and research institutions by providing evidence-based data on realities on the ground and orienting strategies, using the improvements obtained through what has been experienced and learnt.

Empowering women to respond to climate change

M&E being a key instrument to respond to climate change in African contexts, it has to take into account women's vulnerability and contribute to empower them to deal effectively with climate change. M&E principles have then to be redefined to track gender mainstreaming in climate change. Gender sensitive data is a fundamental prerequisite to any effective intervention and has to be used as a benchmark to measure and evaluate achievements.

When it comes to tracking gender mainstreaming in climate change, it is however to be recognized that adaptation should be approached as an emergent and ever-changing process. This makes it harder to measure and greater effort is needed to select gender sensitive process indicators for mainstreaming or economic empowerment of key stakeholders like women. To this extent, it is imperative that adaptation programs are designed to be flexible and use well-designed gender sensitive monitoring and evaluation approaches to track progress on gender mainstreaming in climate change.

On the other end, women's adaptive capacities have to be improved to better cope with climate change. This will ensure better access to resources: land, water, technology, credit, and chemical inputs. This, as well as an increased participation of women in the policy and decision-making process, is at the core of sustainable agricultural strategies.

Key capacities to be built to better deal with climate change in African contexts

In line with the above, here are a few key areas in which capacities need to be built to allow African

states and societies to better cope with climate change, enhancing adaptation and mitigation capabilities, especially for vulnerable social groups like women:

- a. Capacities for climate change policymaking and implementation (global, continental, national, municipal, household and/or farm level);
- b. Negotiation capacities for African stakeholders at the global level (capacity of African states to negotiate on climate change agreements);
- c. Capacities for smallholder farmers (household and farm level being critical in Africa to cope with climate change and environmental degradation);
- d. Capacities for climate smart and more sustainable agricultural strategies; and
- e. Capacities for measurement reporting and verification.

It is clear that these capacities are linked to **knowledge management, policy and applied research**, underlining once more the critical African needs in this domain.

Conclusion

Climate change is a reality, globally and in Africa. Despite the possible disagreements on the extent of its consequences, it is irrefutable that it will increase the risks and challenges faced by African countries in their quest for sustainable economic development.

Climate change is and will be an even more difficult threat for vulnerable social groups, among which women are certainly key actors in the agricultural sector in Africa. For these groups, as for all stakeholders involved, it is then crucial to put in place adaptation and mitigation strategies to transform climate change into an opportunity; and to exploit Africa's comparative advantages (such as the vast amount of unutilized or underutilized agricultural land). To do so, Africa needs to build the required capacities, in terms of knowledge, M&E, policymaking, and negotiation at the global

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level to better exploit and valorize its resources in the global marketplace.

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