Future Agriculturres

CAADP Policy Brief

Agriculture and climate change – politics behind the policies

Climate change threatens Africa's development agenda. Low incomes and economic dependency on climate sensitive natural resources make the continent particularly vulnerable to the impact of climate change. The latest Intergovernmental Panel on Climate Change report states that increasing temperatures and changes in precipitation are very likely to reduce cereal productivity, with strong adverse effects on food security[i].

Policy-makers are increasingly focusing on the linkages between agriculture and climate change. Since 2009 African Union members have committed to embracing climate change mitigation and adaptation as integral components of agricultural development. Mitigation concerns the role of the agricultural sector in reducing CO_2 emissions, while adaptation focuses on the possibilities for adapting farming practices in response to climate change.

'Climate-smart agriculture' is widely used to describe 'triple win' actions that can simultaneously increase agricultural resilience to climate shocks, store carbon and provide development benefits, particularly food security. Although it is widely contested, many international organisations now use the concept as a guiding principle for their interventions in agriculture.

While a number of pilot initiatives are under way, we know little about what this kind of focus on climate change and agriculture will mean in practice. Realising the potentials of agricultural systems for adaption and mitigation is about more than technological choices and farming practices; it is also about politics and power.

This Brief draws on recent research by the Future Agricultures Consortium (FAC) which examines how the agenda for climate-smart agriculture is playing out in practice in Africa, and asks:

- Who participates in national agriculture and climate change policy processes?
- Whose knowledge counts in defining climate-smart agriculture?
- On whose terms and in whose interests are particular approaches and technologies favoured?

These issues are vitally important to understanding the potential impact of climate-agriculture interventions on existing agricultural practices, and their ability to respond to the needs of those farmers who are most vulnerable to the effects of climate change.

What does climate-smart agriculture mean in practice?

As the international focus on the overlaps between climate change and agricultural policies has developed, there has been considerable investment in possible options for adapting agricultural practices to climate change impacts, and in improving the availability and mechanisms of international funding for climate-smart agriculture interventions. But much less attention has been paid to how this policy focus might play out in practice.

The historical background to efforts to integrate climate change and agricultural policy interventions can be found in the organisational complexity and diverse narratives of international agricultural development policy (Box 1), which have in turn shaped many decades of practice in agricultural research and extension in Africa.

Box 1: Incorporating climate change into established agricultural development policy narratives[ii]

Several narrative threads drive international agricultural funding and policy, each with a different understanding of the relationship between climate change and agriculture. Although they inevitably overlap in both their problem analysis and their policy focus, they are derived from distinct basic storylines that have underpinned agricultural development policy for decades.

Narrative	Problem	Policy focus	Key actors[iii]
Growth	Agriculture is the engine of growth for sub-Saharan Africa.Climate change presents both challenges and opportunities in developing the agricultural sector.	Food production, agricultural infrastructure and technology.	IFPRI, IFAD, World Bank, FAO, AU, NEPAD
The End of Poverty	Climate change threatens agricultural productivity and risks reversing progress towards poverty reduction.	Protecting the poor through risk management, social protection and investing in livelihood diversification.	Bilateral donors and INGOs
Sustainable Land Management	Local agricultural practices and climate change are deteriorating natural resources,and climate change will make this worse.	Improve land management practices to rehabilitate natural resources through better use of technology and diversification of production.	GEF, IFAD, CGIAR, UN agencies, FAO
Green Revolution	Overcoming the challenges posed by climate change related to agricultural production will depend on farmers' use of technology.	Food production, agricultural infrastructure and technology.	AGRA, IFAD, YARA, BMGF, AfDB

Climate smart agriculture is a relatively new narrative in agricultural development. FAO defines it as: ***agriculture that sustainably increases productivity and resilience, reduces or removes Greenhouse Gases, and enhances achievement of national food security and development goals***[iv]. The term has become popular among policy actors - turning climate change into an opportunity rather than a problem. Climate smart agriculture can be achieved, it is argued, through improving natural resources management using climate change mitigation mechanisms, such as REDD+[v] .

What happens when initiatives based on this new concept are implemented?

This will depend on how they are integrated into the complex national policy arena – already shaped by the narratives discussed in Box 1 – and how they are translated into interventions that deliver benefits to farmers for adopting particular practices. This is a political process, and the relative power of the different actors involved in it will shape the possibilities of climate-smart agriculture to deliver its promises.

Evidence of implementation is only just beginning to emerge. FAC research examines the policy landscape of climate change and agricultural policy processes at the national level in Ghana and Malawi, and shows how both domestic government politics and the power of donors shape the translation of policy goals into plans and processes for implementation. It also looks at two examples of carbon-financed development interventions, one agricultural and one focused on forest conservation.

The findings provide insight into how, why, when and for whom policy processes around climate change and agriculture matter. They also help understanding of how national and local ownership of policy narratives evolves, whose views count in the way that extension strategies are designed and implemented, and who does and does not benefit when policies hit the ground.

Coping with drought, improving livelihoods in marginal environments and conserving forests are not new concerns. Many of the actions in these areas coming out of the new focus on the agriculture-climate change nexus will inevitably be variations on what has happened before. Examining historical continuities can help avoid repeating interventions that are planned and implemented without considering the knowledge and capacities of farmers and communities, or the institutional barriers that have in the past hindered positive change.

African agriculture and climate change policy processes

The African development policy arena is crowded with externally-driven climate change policy initiatives that are launched into the various existing national policies and priorities for agriculture (Box 2).

Box 2: Ghana – limited space for an adaptation-focused national policy[vi]

Policy discussions on climate change and agriculture in Ghana are underpinned by a tension between a strong international focus on climate change mitigation, and concerns over whether this emphasis – and the funding it attracts – are in line with domestic development priorities.

Agriculture has only become a central part of climate change policy discussions relatively recently. Climate change has in the past been framed as an environmental problem and the domestic actors involved in climate change policy, both governmental and non-governmental, have mostly come from the environment sector.

But the Ghanaian economy is growing fast, and agriculture is key to the country's development ambitions. A dominant policy narrative of the agriculture-climate change nexus has now emerged which frames climate change as a risk to the large-scale, modernised agriculture that will deliver growth and poverty reduction, which must be mitigated. This mitigation focus is reflected in a National Climate Change Policy Framework (NCCPF) in which the forestry, energy and environment sectors all receive more attention than agriculture.

Despite a dominant narrative supported by the most powerful national and international policy actors, there are also divergent views in Ghanaian national policy debates. After a disappointing experience with carbon-financed development through the Kyoto Protocol's Clean Development Mechanism, some are challenging the benefits of a mitigation focus for agricultural development.

The counter-narrative argues that mitigation is an interest that first and foremost serves external actors and that it distracts from what should be Ghana's main task, namely to adapt to climate change. The focus instead should be on how households and communities can be made less vulnerable to current climate risks hindering agricultural livelihood activities and deepening poverty. Only in this way, it is argued, can climate-smart agriculture and development strategies be aligned.

Despite considerable support from international NGOs and bilateral donors, this counter-narrative has so far gained little traction in shaping plans by the national government and the international financial institutions to put the NCCPF into practice.

Many actors within and outside government are involved in a sometimes chaotic process of negotiation and discussion to formulate climate change policy. In some countries, a number of different departments and ministries are claiming to be the climate change focal point within government (Box 3). With so much going on, it can be easy to lose track of who is doing what, who has influence and, in turn, whose goals are being prioritised and whose are not.

The national agriculture and climate change policy arena is an important space for shaping the distribution of resources between a range of services, programmes and projects, funded through different resource streams and implemented by both governmental and non-governmental actors. But equally important in shaping the outcomes of these interventions are the social, political and environmental dynamics of the local contexts in which they are implemented (Boxes 4 and 5).

©Oxfam International on Flickr

Communities' vulnerability to climate change underlines the need to prioritise adaptation - rather than mitigation - in national policy frameworks

Box 3: Malawi – conflicting narratives, contradictory policies[vii]

With close to 90 percent of the population dependent on agriculture as their principal source of livelihood, there is little doubt amongst stakeholders in the Malawian agricultural sector about the need to take climate change seriously. Political struggles for leadership of policy on climate change and agriculture within the government have shaped debates and outcomes, as have the priorities of donors and international financial institutions.

Although climate-smart agriculture does not yet frame the climate change discussion in Malawi, debates on climate change and agriculture closely mirror international narratives and counter-narratives. Within government, there are two dominant ways of seeing climate change: either as a challenge for the agricultural sector, or as a broader, development-focused challenge.

The Department of Environmental Affairs, currently the lead on climate change, supports the 'development' narrative, as does the Ministry of Finance, while the Ministry of Agriculture, Irrigation and Water Development supports the 'agriculture' narrative. The development narrative has come to dominate, not least because it fits well with a strong donor focus on carbon sequestration for climate change mitigation.

Donor preferences are influential not only in shaping policy frameworks, but also implementation, for which they provide the majority of funding and also dominate the generation of knowledge and evidence which informs the definition of priorities. But donors, like government actors, are not singular entities, and there is a great deal of difference, and even contradiction, between them. This plays out when policy priorities reach the ground.

This confusing background of conflicting positions leaves plenty of room for large agencies to implement multiple programmes that, instead of working together towards the same end, undermine each other. A good example is the way that some donors are supporting both the government's flagship fertilizer subsidy programme and agroforestry initiatives. This is occurring despite the fact that the subsidy programme is considered one of the main factors behind the slow uptake of agroforestry, and may be undermining efforts to promote conservation agriculture.

These and other incoherent policy responses, arising from broader conflict in policy debates, reduce the likelihood of achieving policy goals for either agricultural development or climate change.

Box 4: The Kenya Agricultural Carbon Project: who gains and who loses?[viii]

Implementation of the Kenya Agricultural Carbon Project (KACP), a World Bank-supported agricultural carbon finance project, began in Western Kenya in 2008. Building on the previous efforts of a Swedish NGO to support agroforestry, it set out to further train 60,000 smallholders, occupying 45,000ha of land, in a range of agricultural practices including agroforestry, residue management, cover cropping, low tillage cultivation and manure management.

These practices were expected to deliver a triple win – framed in this case as higher yields, improved drought-resilience of crops, and stronger soils that store more carbon. According to the World Bank Special Envoy on climate change, the project was expected to absorb 1.37 tons of CO_2/ha/year, mainly through sequestration of carbon in the soil, allowing credits to be sold to the World Bank.

There is considerable dissonance between the triple win narrative of the KACP and the main storyline of national agricultural policy, which emphasises agricultural intensification, fertilizer use and mechanisation – all known to be agents of carbon emission. There is also a significant divergence when it comes to the narratives of farmers, which tend to focus on just one win, improved maize production. Many beneficiaries of the KACP viewed it as another project in a long line of external interventions offering various solutions to low maize productivity.

So amongst these divergent narratives, who gains and who loses from an agricultural carbon finance project like the KACP? Powerful donor and commercial interests structure power relations and influence both implementation and the sharing of benefits. Project developers become especially powerful by virtue of their resource endowments and their privileged access to the scientific information that informs project design and carbon accounting procedures.

By contrast, farmers – often lacking a chance to understand the science of the carbon cycle and its relationship with climate change – continue to focus on maize yields, largely failing to grasp the potentials of carbon revenue. Farmers' access to the benefits that do accrue to them through participating in KACP is affected, as is often the case, by gender and generational imbalances, and local institutional rules and norms.

Furthermore, the potential of carbon revenue has remained just that. With policies and mechanisms for agricultural carbon finance still under negotiation globally and nationally, and no previous experience of institutionalised carbon finance in Kenya, the KACP has struggled to implement its carbon credit element.

The basic principles of agricultural carbon finance are new not only to many farmers but also to many researchers and government technocrats. But farmers in particular have a right to informed engagement in programmes like the KACP. Exclusion, marginalisation and dependency may result from uninformed engagement and create new vulnerabilities. In other words, a more informed farmer could be more empowered and confident to explore diverse opportunities and cope with climatic stress.

© Curt Carnemark / World Bank

The triple wins claimed by Kenyan supporters of agricultural carbon finance are questioned by Future Agricultures' research

Politics, power and financial resources

A powerful set of actors – in particular funders – are seen to be shaping the way national policy processes are responding to the new emphasis on climate-smart agriculture. Expert knowledge, risk management approaches and neo-liberal thinking continue to dominate the political space within which climate change is framed in relation to agricultural development policies.

Whoever provides the finance for agricultural development interventions often also exercises considerable control over the technology that is extended to farmers. This raises important questions about power and political economy. There are powerful partnerships and commercial interests at work in the promotion of some agricultural models over others, and the search for climate-compatible agricultural solutions is far from being benign and apolitical.

Box 5: Forest conservation in Kasigau corridor – local stakeholder governance of REDD+[IX]

The Kasigau project – the first accredited REDD+ project in Africa to issue carbon credits – conserves a 500,000 acre dryland forest and important wildlife corridor in Kenya's Coastal region.

The project is a commercial venture which has been developed by a private US company specialising in wildlife conservation and eco-tourism. Land tenure of the forest, which dates back to colonial times, is a combination of private ownership, community-owned group ranches and community trust lands. Project participants agree to be part of the REDD+ project by leasing their shares to the project developer.

The forest management activities of the project – which include a network of local Carbon Committees who run an eco-charcoal factory, tree nurseries and a seedling distribution network – are designed and anticipated to sequester CO2. The project developers have implemented a carbon accounting system and used it to begin to claim carbon revenue. Ranch shareholders receive some of this revenue, and some goes to fund community projects.

In contrast to most REDD+ projects in Kenya, the Kasigau project is being implemented in a poor area where access to water and other livelihood assets is very limited. Because of the way the project links carbon benefits to specific and significant local vulnerabilities such as low value dryland, water scarcity and illiteracy, it is seen favourably by the Kasigau people, appearing to reverse their long history of perceived exclusion from resources by centralised, state-based resource management regimes.

The success of this project in its early stages rests partly on the communalised land tenure system that prevails in the area, which has allowed some local people to become shareholders in the carbon-financed enterprise. But Kenya recently initiated land reforms, and the resulting regimes remain unclear, subordinate to powerful centralised interests, focused on individual title and inadequately adapted to particular local contexts. Such reforms potentially threaten the successful governance of the Kasigau project.

In particular, the questions raised concern how much policy autonomy countries have to press for and achieve their own preferences in terms of climate resilient agricultural futures. There are concerns among African stakeholders that the international discourse on climate change mitigation in agriculture might be the first step along a pathway towards obligatory mitigation as a condition of future loans and development finance. Others fear an agenda in which climate change impacts provide the justification to encourage poorer smallholder farmers to exit agriculture altogether, freeing up land for other commercial uses. In the face of powerful international narratives, some countries are better able to protect or project their interests than others; this often depends on economic power and levels of aid dependence.

A number of patterns are emerging in how policies for climate change adaptation and mitigation are projected upon and blended with domestic agricultural policy:

- National level debates over climate change and agriculture reflect political struggles to set priorities and control expected funding. Who leads policy processes determines which strategies are prioritised at national levels, and ultimately who gains and who loses on the ground.

- Though adaptation to climate impacts is the primary concern for African governments, mitigation is high on the agenda in discussions over climate change and agriculture. This is driven by responses to real and expected external funding opportunities from donors.

- The current lack of coherent policy frameworks balancing priorities across sectors has left considerable space for external actors to shape national responses to the challenges and opportunities of climate change, and how governments manage policy conflicts and trade-offs.

- Policies and strategies on climate change and agriculture have been developed largely independent of agricultural sector policies, with stronger linkages to environment and development policies. In some cases, this has led to the implementation of contradictory initiatives which conflict with one another.

Agriculture-climate change initiatives, emerging from this chaotic policy-making process for implementation by farmers or other local land managers, are largely designed according to the narrative currently adopted by the funder. The voices of national governments are relatively muted; and the voices of farmers are all but silent.

Implementing these initiatives involves a new mix of actors – local governments and state extension agents, NGOs, and the farmer and community groups that form the basic infrastructure of extension in many African countries. The power dynamics between these actors, and the history and politics of the availability of and access to natural resources, shape the potential for success and failure. They need a far higher profile in the narratives of the international policy actors whose voices and agendas dominate the policy arena

A window of opportunity to learn from implementation?

While there is broad agreement that the increased focus on climate change and agriculture provides important opportunities, it is too early to say whether these can be translated into tangible benefits for local communities, let alone for their poorest and most vulnerable members. The strong focus on mitigation over adaptation may exclude precisely these people from participating in climate-smart agricultural interventions.

KACP provides a concrete example of implementing the concept of climate-smart agriculture. It shows that the intent of establishing a climate-smart farmer is steered by several external interests which see carbon valuation as a globally-recognized scientific opportunity but overlook necessary investment in farmers' aspirations. If agricultural carbon projects are to achieve their potential, and particularly if they are to provide benefits from smallholder farmers, they face several critical challenges which will need to be addressed.

Box 6: Priorities for ensuring agricultural carbon finance projects benefit smallholders

- Building capacity in agricultural carbon finance for all stakeholders, from national policy-makers through extension agents to farmers.
- Participatory design of agricultural carbon projects to promote local ownership and democratise expertise so that farmers' knowledge and inputs are recognised and respected.
- Ensuring that a proportion of project resources are invested in overcoming underlying constraints to adopting agricultural practices that protect carbon, such as water scarcity and gender imbalances in access to resources.
- Strengthening farmers' carbon rights and the transparency of carbon accounting, given that carbon credits are generated by their agricultural practices.

End Notes

[i] IPCC (2014) *Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change,* Geneva: Intergovernmental Panel on Climate Change

[ii] Villanueva, P.S. and Hiraldo, R. (2011) *Climate Change and Agriculture in sub-Saharan Africa: New Concerns, Old Arguments.* Future Agricultures Occasional Paper 3, Brighton: Future Agricultures Consortium

[iii] IFPRI – International Food Policy Research Institute; IFAD – International Fund for Agricultural Development; FAO – UN Food and Agriculture Organisation; AU – African Union; NEPAD – New Partnership for Africa's Development; INGOs – International Non-Government Organisations; GEF –Global Environment Facility; CGIAR – Consultative Group on International Agricultural Research; UN – United Nations; AGRA – Alliance for a Green Revolution in Africa; BMGF – Bill and Melinda Gates Foundation; AfDB – African Development Bank.

[iv] FAO (2010) 'Climate-smart agriculture: Policies, practices and financing for food security'. Rome: FAO

[v] The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Degradation (REDD) is an effort to create financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. REDD+ includes the role of conservation, sustainable management of forests and enhancement of carbon stocks. www.un-redd.org

[vi] Sarpong, D. and Anyidoho, N.A. (2012) *Climate Change and Agricultural Policy Processes in Ghana.* Future Agricultures Working Paper 45, Brighton: Future Agricultures Consortium

[vii] Chinsinga, B., Chasukwa, M. and Naess, L.O. (2012) *Climate Change and Agricultural Policy Processes in Malawi.* Future Agricultures Working Paper 46, Brighton: Future Agricultures Consortium

[viii] Atela, J.O. (2012) *The Politics of Agricultural Carbon Finance: The Case of the Kenya Agricultural Carbon Project.* STEPS Working Paper 49, Brighton: STEPS Centre

[ix] Atela, J.O. (2013) *Governing REDD+: global framings versus practical evidence from the Kasigau Corridor REDD+ Project, Kenya.* STEPS Working Paper 55, Brighton: STEPS Centre

Acknowledgements:

This Policy Brief was written by **Karen Brock** and **Kate Wellard** for the **Future Agricultures Consortium.** The series editors are **Paul Cox and Beatrice Ouma.** Further information about this series of Policy Briefs at: **www. future-agricultures.org**

The Future Agricultures Consortium aims to encourage critical debate and policy dialogue on the future of agriculture in Africa. The Consortium is a partnership between research-based organisations across Africa and in the UK. Future Agricultures Consortium Secretariat at the University of Sussex, Brighton BN1 9RE UK **T** +44 (0) 1273 915670 **E** info@future-agricultures.org

Funded By

UKaid
from the British people

The views expressed do not necessarily reflect the UK Government's official policies.