

**INTERNATIONAL CLIMATE CHANGE POLICY GOALS:
CASCADING INTO AGRICULTURAL PROCESSES AND POLICIES IN
KENYA**

Background note for comments

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1 Introduction

This is a preliminary report to a study aiming to investigate how international climate change processes play out in national and sub-national agricultural contexts, to ascertain how these influences and are influenced by particular policy narratives, actors, networks and interests. Specifically, this preliminary study examined how international goals on climate change mitigation and adaptation are negotiated at the national level in Kenya and how national level policy processes are manifesting themselves in agricultural sector at sub-national and local level.

The study is conceptualised around of ‘policy processes’ and ‘policy spaces’ that are founded on understandings from previous works on policies and development research impact¹. Whereas policy processes provide an understanding of the initiatives or development pathways facilitating policy change, the concept of spaces shades light on the “operating environment”.

The processes relating to environmental policy have been differentiated into different but overlapping lenses: *Narratives and evidence*- encapsulates how the research and policy narratives are stated or revealed, and how research messages are informed to target

¹ Building in particular on work of the STEPS Centre (www.steps-centre.org), the RAPID programme on research and policy processes (www.odi.org.uk/rapid), Gladwell’s (2000) and Heath and Heaths’ (2002).

audience, thought of and reframed; *politics and interests*-prevailing power dynamics, policy motivation and the driving force to towards adhering to issues or remembering; *actors and institutions*: existing formal and informal networks, organisations, norms, individuals and champions/promoters of a policy? Policy spaces are characterised by opportunities, moments and channels through which citizens can act to potentially affect policies, discourses and decisions and relationships that affect their lives and interests (Gaventa, 2006). The policy spaces provide avenue for research to inform policy processes and may be identified at the centre of the three lenses as depicted in Figure 1.

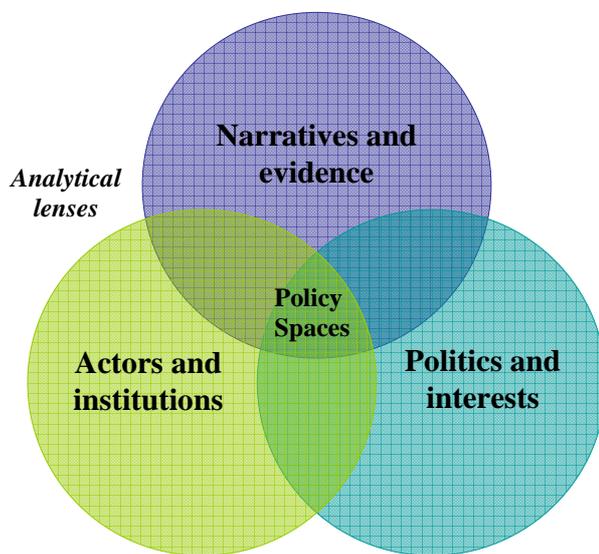


Figure 1: Conceptual lenses and policy spaces. Modified from Keeley and Scoones (2003) and Gaventa (2006)

2 International Climate Change Policy Environment

Climate change is happening and is the greatest environmental challenge of the 21st century. In response to this, diverse policies and goals aimed at mitigating the impacts of climate change by either curtailing greenhouse gas (GHG) emissions by sources or enhancing sequestration by sinks as well as, reducing climate vulnerability and strengthening climate resilience have been developed in the international realm by various actors. Among the primary actors is the United Nations Framework Convention

on Climate Change (UNFCCC) whose adaptation policy options are manifold. For starters, Bashmakov *et al.* (2007) and Gupta *et al.* (2007) have pointed out that UNFCCC advocates for building capacity to assess climate vulnerability and examination of adaptation needs and options for instance, by supporting the development of comprehensive national adaptation strategies. Kenya launched its Climate Change Response Strategy in 2010, setting an important milestone in the region towards actualizing its envisioned pathway towards addressing climate change. The strategy is constrained by lack of comprehensive policy upon which it ought to have been anchored. However, this should not be amplified as a major constrain, considering the willingness and support already shown by the government in the development of the strategy. The plan of action in the strategy also lacks the involvement process or targeting of the local communities in response to climate action, and yet this are expected to be the primary beneficiaries in the adaptation innovations.

Besides UNFCCC, the intergovernmental panel on climate change (IPCC) also supports an array of adaptation strategies. They range from increased rainwater harvesting and improved water storage and conservation techniques to water reuse, desalinization, irrigation efficiency, improved land management, adjustment of planting dates and crop varieties. These are key adaptation initiatives in Kenyan context considering that 80% of the land surface is arid and semi arid lands. Indeed under the vision 2030 Kenya aims at having increased land under irrigation through channeling of surface run off into dams/pans.

The IPCC has spelt out other mitigation options and goals, entailing:

- improved energy efficiency and utilization of cleaner energy resources and technologies to improved forest management,
- phasing out of chlorofluorocarbons (CFCs) under Montreal Protocol,
- improved livestock waste management,
- altered use and formulation of fertilizers, and other changes to agricultural land use, while maintaining food security, accelerated and coordinated research programs,

- development of new technologies,
- review of planning in relevant fields, encouragement of beneficial behavioral and structural changes and expansion of global observation and monitoring *inter alia*.

The Ministry of Agriculture in Kenya has been supporting conservation agriculture, which is an initiative also promoted widely by the Kenya Agricultural Research Institute (KARI) in partnership with FAO. The accruing environmental benefits resulting from wider adoption of conservation agriculture by way of reduced use of mineral fertilizers are enormous. However, going by the past experience of increasing food production per unit area through intensive agriculture, both in the northern countries and Asia, realization of food security might be a challenge in the country.

The above mitigation options and goals have also been reflected in other international agreements and protocols for instance the (i) World Food Summit Plan of Action that emphasizes reduction of deforestation rate, maintenance and development of multiple contributions of forests, trees and forestry to food security; (ii) World Summit Outcome, General Assembly resolution of October 2005 that advocates for promotion of innovation, clean energy and energy efficiency and conservation and acceleration of the deployment of cleaner technologies; (iii) United Nations Convention to Combat Desertification (UNCCD) that aims at combating desertification and mitigating the effects of drought in countries experiencing serious drought or desertification especially Africa, through effective action at all levels, supported by international cooperation and partnership arrangements, with a view to contributing to the achievement of sustainable development in affected areas, and; (iv) United Nations Millennium Declaration, General Assembly resolution of September 2000 that committed to stop the unsustainable exploitation of water resources by developing water management strategies at the regional, national and local levels, which promote both equitable access and adequate supplies, among others.

3 The Kenyan Climate Change Policy Environment

Actors and policy formulation

The foregoing international climate change processes as well as, their goals have some important linkages with the processes that play out in the national and sub-national agricultural context in Kenya. These processes influence both how they are, or not, integrated in agricultural policy programmes and, they find their lucid expression in the work of Alila and Atieno (2006). According to these authors, policy formulation process in the agricultural sector in Kenya involves multifarious actors, who are defined by politics, geographical settings, interests, gender and financial resources, since it constitutes the foundation upon which the economy is built. The actors *per se* include the Ministry of Agriculture (MoA), Ministry of Livestock and Ministry of Cooperatives together with their statutory boards, parastatals, cooperatives, central government, executive, parliament and its caucuses, civil society (NGOs, FBOs, CBOs, trade unions, etc), budget process (Ministry of Finance and the Central Bank of Kenya), development partners, interest groups, farming community, ethnic groups as well as, the political system. The decisions that influence agricultural policy formulation and implementation are made by these actors interactively, which imply that policy formulation process is becoming more systematic, transparent and inclusive. This means that there is sharing of emerging information among the actors, leading to ownership not only of the processes but the products. This will have an end result of each institution using the same tool to inform its target audience, which will have a synergetic influence in the sector development towards climate change proofing.

Policy formulation, particularly within MoA, is inclining towards evidence-based findings from research undertakings of local consultants, universities and policy research institutes (PRIs), which policy formulation had overlooked in the past. The importance of policy based on evidence has grown with the establishment of PRIs like the Institute for Policy Analysis and Research (IPAR), Kenya Institute for Public Policy Analysis and Research (KIPPRA), Kenya Agricultural Research Institute, Institute for Development Studies (IDS) of the University of Nairobi and Egerton University-based Tegemeo Institute of Agricultural Policy and Development.

Although an all inclusive and transparent landscape emerges from the above, there is lack of coordinated climate change adaptation planning by the actors. Conversely, there is already emerging efforts to establish climate change units, for example in the Kenya Agricultural Research Institute (KARI), by the actors. This being a new niche area, efforts could be made to share experiences and emerging knowledge within the new units through communities of practice. Indeed shaped by the actors mandate area, salient policy issues on climate change adaptation can be synthesized and analyzed by the agricultural research institutions for wider sharing and informing national level policy processes.

The formulation of the National Climate Change Response Strategy (NCCRS 2010), which is a key policy document that also addresses measures for mitigation and adaptation in the agricultural domain, offers a perfect example of the policy process at the national level in Kenya. The Ministry of Environment and Natural Resources (MENR) spearheaded the process of formulating of this strategy that will guide the Ministry in all activities and interventions aimed at addressing issues related to climate change. That is, it will consolidate all the national efforts and focus on climate change adaptation and mitigation. The process of formulating the NCCRS *per se* was participatory and consultative, and all the key sectors of the economy were addressed. In other words, climate change was viewed as a challenge that cuts across all the sectors and segments of the society in Kenya, and as such needed input from diverse stakeholders and players. The stakeholders comprised of development partners, representatives from the private and public sector as well as, parliamentary committee dealing with climate change. A Climate Change Strategy Coordination Committee (CCSCC) with selected key stakeholders was also formed and chaired by the MENR, which worked in conjunction with the National Climate Change Coordinating Committee (NCCCC) that was formed in 1992. A consultant company facilitated the formulation of the NCCRS.

Key to implementation of the strategy is the integration of local knowledge and private sector. The integration of the two bodies in the proposed action plan remains weak in the strategy, considering that the plan targets government mainstream institutions for

implementation. Whereas local knowledge provides basis for the target primary beneficiaries identifying with the interventions by way of adapting to the production conditions, the private sector provides the required impetuous force to accelerated growth of national economy. The latter is necessary for creation of green economy and employment as a source of diversified sources of livelihood.

However, unlike the other policy framework documents e.g. NCCRS 2010 and Agricultural Sector Development Strategy (ASDS 2010-2020), the Strategy for Revitalizing Agriculture (SRA 2004-2014), which embraces some aspects of climate change adaptation and mitigation, embodied no stakeholder consultation. This was due to the speed with which it was formulated. At the moment, it faces the challenge of developing stakeholder ownership. The SRA per se was developed to complement the Economic Recovery Strategy (ERS) in agriculture and emphasizes public-private sector partnerships to facilitate competition, enhance markets, raise efficiency in the usage of resources and improve private profitability.

Summarizing on actors involvement in the climate change arena in the country, three core groups of actors are emerging. First there is the pronounced group of donor community and yet small in number that is dominating climate change agenda in Kenya. Under the strong umbrella of the Climate Change Coordination Group (CCCG), which is chaired by a representative of the donors and the Ministry of Environment, this group has been in the forefront defining and steering the climate change process in the country. This is the most visible group. Secondly, there are the government processes and actions, which are primarily formulated and implemented with the support of the donor community. These are not very pronounced, although in 2011, the activities are starting to show though aligned to the home sectors. Important and yet lowly featured are the grass root actors, who are directly dealing with the local communities who are the custodians of the local knowledge and having relevant adaptive options to climate change at the local level. There is need to capture and consolidate the last two segments in terms actual climate change management options for wider sharing across relevant parties. This will accelerate

adaptive learning within and across sectors and region/ecological zones based intervention approaches in the country.

Climate change mitigation and adaptation options

Essentially, the NCCRS 2010, Vision 2030 and National Development Plan 2002-2008 are the key blue prints that outline climate change adaptation and mitigation goals to be pursued in the agricultural sector and Kenya in its entirety. According to NCCRS (2010), the mitigation options for climate change in Kenya ranges from application of agricultural technologies to increase food production while simultaneously limiting or reducing GHG emissions, e.g. through the appropriate use of biotechnologies, as subscribed in the National Biotechnology Development Policy (2006) and proper management of agricultural waste (e.g. using waste to produce biogas). These pathways therefore can be seen to be synergistic in nature in that they contribute to mitigation as well enhancing adaptive capacity in the target production systems. These include for example mulching instead of repeated tilling to control weeds, promotion of intercropping in plantations especially tree-based intercropping (TBI) as an agro-forestry system where a crop is established between planted tree rows and promotion of organic farming, e.g. using crop residues and cow-dung as manure, which may be better in fixing soil carbon compared to conventional methods.

The adaptation interventions as given in the NCCRS (2010) in the agricultural and livestock sectors on the other hand include supporting community-based adaptation strategies such as building or enhancing systems for conveying climate information to rural populations including Early Warning System; enhancing financial and technical support to the Orphan Crops Programme so that indigenous and more drought tolerant food crops like cassava, millet, sorghum sweet potatoes can be re-introduced into the farming systems; and promoting irrigated agriculture by developing irrigation schemes along river basins, construction of water basins and pans, but also reconfiguring irrigated production systems to use water more efficiently and to accommodate the use of marginal quality water.

In addition, adaptation measures according to the National Development Plan (2002-2008) vary from carrying out national inventories of GHGs sources and sinks; carrying out national programmes for mitigating and adaptation to climate change; strengthening scientific and technological research and systematic observations related to climate system, and promoting the development and diffusion of relevant technologies, and; promoting education programmes and public awareness about climate change and its effects.

The Kenya Vision 2030 has also captured some of the climate change goals and strategies including:

- i. expansion and intensification of irrigation,
- ii. improvement of seed quality and livestock productivity (e.g. through seeding ranches and rangelands and enriched fodder),
- iii. better management of water quality (increased water storage and harvesting),
- iv. conservation of forests through rehabilitation of degraded water catchment areas,
- v. implementation of compensation for environmental services to include carbon markets and use of biotechnology,
- vi. integration of climate change into development planning,
- vii. promotion of adaptation activities in high risk disaster zones,
- viii. intensification of research on the impact of climate change in Kenya and
- ix. establishment of a national air quality monitoring system.

Manifestation of the climate change options in the agricultural sector policies

Some of the above-mentioned climate change response strategies, as contained in the NCCRS 2010, Vision 2030 and National Development Plan 2002-2008, have also manifested themselves in agricultural sector strategies particularly the ASDS (2010-2020) and SRA (2004-2014). For instance, the salient issues relating to climate change that are found in the SRA include:

- i. promotion of water harvesting and management technologies on farms (roof catchments, pans, dams, water holes etc);
- ii. introduction of water-saving technologies e.g. canal lining and drip irrigation; taking measures to increase the total national forest cover through afforestation and agro-forestry (promoting efforts to increase vegetative cover supplying seeds of fast growing trees);
- iii. surveying and developing modalities for control of flooding in Nyanza and Western provinces; improving and developing genetic or breed of non-traditional livestock and animal species e.g. camels, ostrich and other wildlife through game cropping and sanctuary operations, and;
- iv. diversification of production to include game ranching, bee keeping, growing of tree crops and medicinal plants and crop and forage production or conservation.

Similarly, some of the issues related to climate change that are manifest in the ASDS include improvement of livestock breeds, development of pastures and forage, support of the efforts to reduce livestock diseases and pests, improvement of water harvesting and management techniques (e.g. constructing pans, water holes, dams, well planned bore holes), protection, conservation and sustainable management of the forest resources, rehabilitation of the water towers, to name but a few.

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