

Climate Change and Agricultural Policy Processes in Malawi

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Abstract

This paper explores climate change – agriculture debates in Malawi in view of the increasing interest and funding pledges for the agricultural sector in a changing climate. While there is increasing evidence of how climate change may affect Malawian agricultural systems, and a growing body of literature on possible response strategies, less is known about how priorities are made, by whom and with what outcomes. This matters because climate-related funding can be a major factor for how the agricultural sector develops, in Malawi as in other countries across Africa.

This paper is the first of its kind to analyse policy discussions on climate change and agriculture in the country. The primary focus is the national level, but some of the implications of national debates at sub-national levels, and the questions they raise, are also discussed. The paper shows how the climate change-agriculture debate at national levels is largely framed as an issue of managing the additional risks on agricultural production systems. The two dominant narratives in Malawi centre on, first, the need to make agriculture robust in the face of climate change, and second, to consider agriculture as part of a broader development focus. Implications of these narratives are discussed in the case of four strategies, namely conservation agriculture, drought-resistant varieties, agroforestry, and index-based weather insurance.

The paper argues that key factors to understand policy processes and their outcomes in Malawi include the struggle for leadership and coordination among key government actors, the government's attachment to the subsidy programme, and donors' strong influence on the policy agenda as well as actual strategies. The paper shows that current debates create a situation with incoherent policy responses, reducing the likelihood of achieving policy goals for either agricultural development or climate change. Important challenges thus remain in integration of policy goals across the two areas that work in synergy rather than undermine each other.

1 Introduction¹

The aim of this paper is to analyse the nature and implications of emerging policy debates on climate change and agriculture in Malawi. Recent years have seen a rapidly increasing interest in the challenges, but also opportunities, that climate change presents to the agricultural sector in Africa.

Malawi is ranked as one of the countries in the world most at risk from the effects of climate change (Makoka, 2008; World Bank, 2010). Much of the vulnerability to climate change is related to the population's reliance on rain-fed agriculture to support their livelihoods. An increasing body of research has focused on the challenges posed by climate change to the country, and the range of possible responses at national and local levels (Bei, et al., 2006; Mkwambisi, 2012). A number of pilot adaptation

and mitigation activities are underway, such as weather index insurance schemes and reforestation programmes for carbon sequestration (Makoka, 2008; Jumble, et al., 2008).

However, less is known about how this increasing interest may translate into actions and achievement of goals for agricultural development and responses to climate change. This matters because funding for climate change activities – mitigation as well as adaptation – could have major implications on the agricultural sector in Malawi over the coming years and decades. For example, there are concerns that programmes focusing on carbon storage may undermine the ability of smallholder farmers to adapt to future climate change (Magombo, et al., 2011). Chinsinga et al (2011) also suggest that there are conflicts between policy goals on climate change adaptation, focusing on crop diversification, and the strong support to maize in agricultural policies and the government's flagship fertiliser subsidy programme.

This paper focuses on how debates on climate change and agriculture are taking place at the national level, and in turn their implications for the country's agricultural development. What are the major narratives driving the debate, who are supporting (and opposing these), and why? Ultimately, what do they tell us about future pathways? A better understanding of these debates may help identify coherent policy goals and strategies, in Malawi as well as other countries in Africa.

To help unpack policy processes and address these questions, the paper builds on the analytical framework developed by Keeley and Scoones (2003). The framework highlights the dynamic interaction between three elements: narratives and discourses, actors and networks, and politics and interests. Of particular interest here is how policies, strategies and activities are shaped by how the issue is framed, how actors are organised around these narratives, and in turn how they use these to promote certain activities. The underlying hypothesis is that as climate change funding will be entering complex domestic policy processes, understanding the key narratives, actors and their interests can give important insights to why certain interventions are chosen over others, who may win or lose, and ultimately the conditions for achieving climate change policy goals amidst other priorities.

The paper is structured around the following sections. After a background on the Malawian national climate change and policy context (section 2), the paper then (section 3) explores the key narratives on agriculture and climate change, and elaborates on the politics of these in Malawi. In section 4, the paper looks at how these narratives are mobilised in activities on the ground, and some of the challenges this raises. The final part (Section 5) offer some discussion and conclusions in relation to policy processes literature, discussing the future implications for Malawi.

The study is part of a series of country case studies² which aims to unpack policy processes on climate change and agriculture. The paper is based on key informant interviews, focus group discussions (FGDs), and extensive review of secondary sources. Interviews were carried out during August-December 2011 with key informants among government agricultural sector staff, academics, representatives from donors and NGOs, and private sector representatives. A total of 35 and 6 key informant interviews and FGDs respectively were carried out for this assessment. The FGDs were carried out where more than three people from an organization were available for interviews. Secondary data sources included NGO reports, government policy and strategy documents, and donor agency reports. The assessment adopted entirely a qualitative approach due to the nature of the issues that were targeted. The qualitative approach focuses on perceptions, reactions and opinions of stakeholders rather than quantification in the collection and analysis of data (Bryman, 2001 and Campbell, 2002). This yields opinions and sentiments that are of greater value when analyzing policy, institutional and development issues.

2 Climate change and agriculture in Malawi: policy context

Malawi is ranked as one of the world's twelve most vulnerable countries to the adverse effects of climate change (World Bank 2010). The country has been suffering from several floods and droughts over recent years. The adverse effects of climate change and variability in Malawi are skewed disproportionately towards agriculture: Malawian subsistence farmers suffer from climate related stressors in different ways through droughts, dry spells and floods, erratic and unreliable rainfalls.

The climate sensitivity of the agricultural sector is illustrated by the fact that almost 90 percent of Malawians depend on rain-fed subsistence agriculture for food. Malawi remains predominantly agrarian almost five decades after independence in July 1964 (Chirwa, 2004; Chinsinga, 2008; Anderson, 2011). The sector contributes over 90 percent to the country's export earnings, about 39 percent of the country's Gross Domestic Product (GDP), accounts for 85 percent of total employment, supplies more than 65 percent of the manufacturing sector's raw materials, and provides 64 percent of the total income of the rural people (Mucavele, 2010).

As part of its colonial heritage, Malawi maintains a largely dualistic agricultural sector comprising the smallholder and estate sub-sectors (Chirwa, 2004; Chinsinga, 2008). It should be noted, however, that the smallholder sector is more important than the estate sector in terms of the overall contribution to total GDP. It is estimated that the smallholder sector accounts for 80 percent of Malawi's food production and 65 percent of agriculture's contribution to the country's GDP (GoM, 2006).

Maize is the dominant crop for smallholder farmers in Malawi. Overall, an estimated 97 percent of smallholder farmers grow maize, and more than half of households grow no other crop (Vandermoortele and Bird, undated). According to Dorward et. al., (2008), the share of maize growers to the total varies from 93 to 99 percent in the country's main regions. The paradox is that even though maize is a dominant crop among smallholder farmers in Malawi, only 10 percent of the maize growers are net sellers, with as high as 60 percent being net buyers (Anderson, 2011). This shows that while agriculture and maize are critically important to the livelihoods of most Malawians, their overall performance raises serious concerns about their long-term viability.

Malawi's vulnerability to climate change is further heightened by the country's high poverty levels. Although official figures show that the country has registered a rapid decrease in the incidence of poverty, declining from 53 percent to 39 percent between 2004 and 2009, poverty remains deep, widespread and severe. Moreover, the official statistics that showcase the dramatic decline poverty are highly contested (Chinsinga, 2010; Anderson, 2011). Poverty is predominantly rural with about 94 percent of the poor living in rural areas. According to Population Action International (2010), Malawi is one of the world's most water stressed and least climate resilient countries, facing considerable challenges of declining agricultural production as well as rapid population growth rates.

Data from the 2005 Integrated Household Survey (IHS) clearly underscores Malawi's vulnerability to the adverse effects of climate change in the agricultural sector (Makoka, 2008). The IHS showed that five out of the eight most serious shocks that households grapple with are agricultural in nature. These shocks, in order of severity, include large rises in food prices, lower crop yield due to drought or floods, large falls in crop sales, death or theft of livestock, and crop diseases or pests. According to Mkwambisi (undated), the situation is exacerbated by increasing poverty in rural areas, increasing population pressures on a limited land resource base, land degradation arising from agricultural expansion and the cultivation of marginal lands, and increasing deforestation to meet increasing demands for energy, food and construction purposes. Farmers' vulnerability to climate change is further compounded by rapidly declining soil fertility, inadequate agricultural policies and the HIV/AIDS pandemic (Suarez and Linnerrooth-Bayer, 2010).

The Malawian government signed the United Nations Framework Convention on Climate Change (UNFCCC) on June 10 1992 and ratified it on April 21 1994. It acceded to the Kyoto Protocol in 2001³ (Benson and Mangani, 2009). The Department of Environmental Affairs (DEA) is designated as the national focal point for the UNFCCC. Malawi has completed and submitted a number of reports to the Convention, including Greenhouse Gas Inventories, National Communications and the National Adaptation Programme of Action (NAPA) (Mkwambisi, undated).

Malawi does not yet have a coherent national policy framework on climate change. The NAPA remains the key climate change policy document. Formulated in 2006, the NAPA identifies thirty priority interventions for adaptation across eight different sectors, among them agriculture. Out of the thirty three priority areas, fifteen are considered as urgent in order to reduce the vulnerability of rural communities to adapt to the adverse impacts of extreme weather events caused by climate change (GoM, 2006). These pressing priorities are meant to strengthen the resilience of local communities to adapt to the adverse effects of climate change. The priority areas cover a wide range of issues whose strategic mix has the potential to strengthen the capacity of communities to adapt to the adverse effects of climate change (see also Box 1 below).

Box 1: NAPA Priority Areas for Rural Areas

- Sustaining life and livelihoods for the most vulnerable
- Enhancing food security and developing community based storage systems for seed and food
- Improving crop production through the use of appropriate technologies
- Increasing resilience of food production systems to erratic rains by promoting sustainable dimba production of maize and vegetables in dambos, wetlands, along river valleys
- Targeting afforestation and reforestation programmes to control siltation and the provision of fuel wood and for their benefits, such as sources of alternative cash income
- Improving energy access and security in rural areas (e.g. through extension of the rural electrification programme, energy-efficient stoves and development of ethanol-based stoves)
- Improving nutrition among rural communities (e.g. through the promotion of fish farming, rearing of small ruminants and nutritional supplements for children and the sick)
- Disseminating bed nets in high incidence malaria areas
- Developing food and water reserves for disaster preparedness and response
- Developing community based wildlife ranching and a breeding for Nyala
- Developing and implementing strategies for drought preparedness, food zoning, and mitigation works,
- Developing technologies to mitigate climate change
- Providing standby power generation facilities
- Managing forest fires in collaboration with communities, and
- Developing small dams, and other storage facilities, to mitigating flooding, to harvest water and to initiate community based fish farming and breeding

Source: Malawi NAPA (GoM, 2006)

In the agricultural sector, the Ministry of Agriculture, Irrigation and Water Development (MoAIRWD) has attempted to operationalise NAPA priorities through the Agriculture Sector Wide Approach (ASWAp). The ASWAp has been developed with support from a consortium of donors led by the World Bank. The ASWAp is basically a prioritised results orientated framework for implementing

the agricultural components of the MGDS (Malawi Growth and Development Strategy), and aims to achieve harmonized and gradually aligned investments by government and donors. ASWAp's main priorities are, (1) improved food security at household and national levels, (2) commercial agriculture, agro-processing and market development, (3) sustainable agricultural land and water management, (4) climate change issues, and (5) key support services, namely institutional development, capacity building and agricultural research and extension services.

The ASWAp identifies several strategies which are meant to increase the resilience of communities in rural areas to the adverse effects of climate change (GoM, 2008). They include the following:

- Improvement of early warning systems and weather insurance.
- Developing community storage systems for seed and food.
- Increased use of irrigation.
- Protection of catchment areas.
- Developing and implementing strategies for drought preparedness and developing small dams to harvest water.
- Use of recommended improved crop varieties that are resistant to drought.
- Use of recommended improved livestock breeds.
- Improved knowledge and understanding on how low temperature profiles in the lake disrupt fish breeding and survival.

The ASWAp also promotes sustainable land and water management. This is considered vital for sustainable agricultural production for ensuring food security and agricultural incomes for the present and future generations. In particular, the overall objective is to promote conservation agriculture, seen as beneficial in order to increase the soil, water and nutrient capacity to ensure higher productivity of rain-fed crops and mitigate the effects of weather variability and climate change.

There is a long list of government policies that have a bearing on climate change and agriculture policy processes (see Annex 3). Broadly speaking, these are a combination of overarching national and sector specific policies. The overarching policies include the Vision 2020 and the Malawi Growth and Development Strategy. These policies provide the broad strategic directions for sector specific policies in terms of what to prioritize when it comes to implementation. In many ways therefore, the sector specific policies operationalise the overarching national policy frameworks. Although different in tone and principal focus areas, the overall objective of both the overarching national and sector specific policies is to enhance the capacity of communities and local level institutions to adapt to the adverse effects of climate change.

3 Key narratives and positioning of key actors

Few would disagree that climate change presents a challenge of increasing shocks and stressors to farming systems in Malawi that are already under pressure from a number of socio-economic stressors. However, the way this story is told differ in the description of causes, consequences and solutions. Two major overlapping, but also partly conflicting, narratives will be discussed in the rest of this section: first, the challenge of “climate proofing” the agricultural sector, and second, agriculture as part of a broader development agenda. As shown, these different narratives are supported by actors with particular takes on the problem, which in turn has implications for what actions may be advocated – and funded – in practice.

3.1 The challenge of making agriculture “climate proof”

This narrative focuses on problems and solutions within the agricultural sector. Broadly, climate change is considered a challenge that can be managed while still relying on agriculture to provide livelihoods for the majority of the population. However, agricultural practices need to be adjusted, as current farming practices will be unable to tackle the challenges posed by climate change. This broad narrative is supported by a wide range of CSOs, donors, government agencies and researchers. However, there are alternative views on causes and solutions. Some view current farming practices as inherently unsustainable and leading to depleting soil fertility and reduced farm yields. In this view, the solution is to improve farming systems, introducing drought resistant crop varieties and emphasising the need for changes in farming practices and technologies. This view is illustrated by the argument from an interviewee that “farmers can only adapt to the adverse effects of climate change and guarantee themselves secure and resilient livelihoods if they dramatically modify their farming techniques”⁴.

A sub-narrative here focuses on the need to reduce climate risks brought by climate change: Farmers can survive the adverse effects of climate change “if they would hedge against agricultural production risks such as droughts or floods”⁵. The weather index insurance is considered a critical component of farmers’ adaptation efforts because “weather shocks to agricultural income generate fluctuations in household consumption which in extreme cases may lead to famine or death”⁶. One key argument in its favour is that it can break down constraints that have locked Malawi in a so-called “low maize productivity trap” (LMPT) (Dorward and Chirwa, 2011). Being a maize dominant agricultural system, Dorward and Chirwa (2011) argue that inter-year maize price instabilities makes it less attractive for potential surplus maize producers to invest in productivity enhancing inputs such as improved seed and fertilizers, while it forces the poor to continue cultivating maize even when

they cannot afford productivity enhancing inputs. They are forced to cultivate maize for fear of high maize prices. This is a cause of concern because the majority of maize producers, about 60 percent, are net buyers of the very same maize.

An alternative view to this narrative is that Malawian farming strategies are well adapted to climatic shocks and stressors, but that problems rather lie with the neglect of traditional knowledge and practices. In this view, improved crop varieties will only work if they fit the local social and cultural context and address other underlying constraints to farming such as land and market access. The promotion of conservation agriculture (see below) borrows from both these views in that it involves a change from traditional farming practices, but also focus on low external technology inputs. Internationally, conservation agriculture is promoted as “climate smart agriculture”, i.e. a practices that can help productivity increases while addressing both mitigation and adaptation⁷.

3.2 Agriculture as part of the broader development agenda

A second major narrative shares the view that farming needs to be modernised, but has a broader focus. Agriculture is seen as an engine for economic growth, but also an option that with climate change may become increasingly unviable for many of those currently relying on agriculture for their livelihoods. Movement out of agriculture thus forms part of the solution. The main argument is that “climate change is not merely an agricultural problem but rather a development problem [and] hence the agricultural sector should not be treated separately when dealing with it”⁸. This narrative is mainly advocated by some donors and government officials, mostly from the Ministry of Finance, Economic Planning and Development (MoFE&D). The recommendation is that climate change issues have to be mainstreamed⁹ into the country’s development programmes and priorities aimed at achieving sustainable development.

Following from this, the argument is that climate change has to be treated as a crosscutting issue, as climate change affects almost each and every aspect of people’s livelihoods, and thus “we need to think about climate change and its implications for development in everything we do”¹⁰. According to an official from the MoFE&D, climate change issues have to be mainstreamed in the country’s overarching development frameworks such as the Malawi Growth and Development Strategy (MGDS). The interviewee argued that it was on this premise that “climate change issues have already been mainstreamed in the draft MGDS II”¹¹. This is imperative because climate change presents a serious and multifaceted development challenge.

The NAPA illustrates this perspective. According to one view,¹² the distinctive feature of the NAPA is that it is “clear in suggesting that other than restricting climate

change to the traditional categorization of it being an environmental issue, the framework adopts a broader view". The NAPA postulates that climate change entails the broader developmental concept that relates to the desire for poverty reduction, to attain food security, and sustainable socio-economic development for the medium and long-term. This represents a departure from how climate change issues were conceptualized in the MDGS I, where the framing of climate change was greatly orientated toward the agricultural sector. The intended outcomes in addressing matters of climate were to achieve resilience to the adverse effects; improved agricultural production under changing climatic conditions; and improved climate monitoring and preparedness to disasters (GoM, 2006).

While advocates of this narrative acknowledge that the dominance of the agricultural sector in the country makes it attractive to pay special attention to it, they argue this "completely misses out the point that climate change is a development problem and not necessarily an agricultural problem per se"¹³. The main thrust of this narrative is that climate change is best addressed as part of an integrated sustainable development agenda that promotes economic growth, advances energy security, reduces pollution and eradicates poverty, as well as mitigates greenhouse gas emissions. The overriding goal is to achieve sustainable development which can reduce vulnerability to climate change by enhancing a country's adaptive capacity and increasing its resilience (Dovers and Hezri, 2010).

A further aspect of this narrative is that treating climate change challenges in the agricultural sector as an integral part of the sustainable development agenda broadens prospects for diversification of livelihoods out of agriculture. One interviewee argued that "the emphasis on the agricultural sector limits consideration of options that can make individuals, communities or even countries resilient to the adverse effects of climate change"¹⁴. The sustainable development perspective would thus foster initiatives and interventions that would help vulnerable communities to step out of agriculture as their principal source of livelihood. It was further argued that "the narrow focus on the agricultural sector is taking a huge gamble especially as climatic patterns continue to get even more precarious that may greatly undermine agriculture as a viable livelihood strategy"¹⁵. The bottom line is thus that there is need to promote livelihood diversification as climatic patterns become more and more uncertain.

As a counter narrative, many CSO representatives contended that advocacy for climate change as a development challenge, especially from donors, is "a veiled attempt to promote mitigation measures to deal with the problem of climate change"¹⁶. They particularly singled out carbon sequestration initiatives as enhancing rather than reducing the vulnerability of farmers to the adverse effects of climate. The argument was that donors are "shifting the burden of addressing the adverse effects of climate change to the poor and vulnerable segments of society in developing countries like Malawi"¹⁷. Carbon

sequestration initiatives have "introduced considerable competition between land for cultivation of food crops and trees"¹⁸. This is construed as a serious threat to food security since carbon sequestration initiatives have enormous substitutive effect as a result of the financial incentives associated with them. Consequently, threats to food security loom large because farmers are releasing portions of their already little land endowments for growing trees for carbon sequestration. Thus, for critics, construing climate in the agricultural sector as an integral part of the sustainable development agenda exposes them to a risk not only of increased competition, but it also "masks the fact that farmers have to shoulder a disproportionate burden of implementing strategies to deal with the problem of climate change at expense of their own food security"¹⁹.

4 Policies, actors and politics

Although the two main narratives above are not mutually exclusive, they illustrate some of the challenges and choices facing the agricultural sector in Malawi under climate change. To understand their implications, it is necessary to consider them in relation to the politics of the agricultural sector in Malawi. The nature of climate change and agricultural policy processes is greatly affected by the jostling at the national level about which government agency should coordinate climate change issues. The intense struggle among government agencies is attributed to "the desire to control real or imagined massive financial resource flows associated with the climate change agenda"²⁰. Importantly, this struggle for control of the climate change agenda seems to have somewhat obscured the role of the Ministry of Agriculture, Irrigation and Water Development (MoAI&WD), despite the fact that adverse effects of climate change in Malawi will be disproportionately felt in the agricultural sector.

There is clearly a battle of leadership control for the climate change agenda both generally and specifically in the agricultural sector. There are three government agencies which different stakeholders feel are better placed to provide leadership to the climate change agenda (Chinsinga, et al., 2011). Currently designated as the focal point for climate change activities in the public sector, the Department of Environmental Affairs (DEA) is touted as an ideal leader because "it has the required capacity and technical knowhow on broad and specific climate change issues"²¹. On the other hand, those viewing climate change challenge as a development issue are pushing for the Ministry of Finance, Economic Planning and Development (MoFEP&D) to assume a leadership role in the sector, because "of the crosscutting nature of climate change issues which makes climate change both an economic and development issue"²². Still others are of the view that the Ministry of Agriculture, Irrigation and Water Development (MoAI&WD) is better positioned to do so because the adverse effects of climate change in this country are predominantly agricultural in nature (Makoka, 2008): "climate change effects affect agriculture most than any other sector since Malawi is

predominantly agrarian which generally threatens people's livelihoods and the economy as a whole"²³. Out of the eight serious shocks identified by Makoka (2008) that Malawi grapples with, five are agricultural in nature.

Many attribute the struggle for leadership to the absence of a coherent climate change policy framework. Although there is a national climate change programme, this does not resolve the question of leadership of the climate change agenda. The argument is that "without a policy framework outlining the scope and nature of the climate change problem in the country, the question of leadership in the sector is bound to be contested"²⁴. The national climate change programme is essentially a framework for implementing climate change projects, coordinated by UNDP. It was an initiative of donors to provide some strategic direction in the implementation of climate change activities in the country.

At the same time, the three potential lead agencies have engaged with the national climate change programme in ways that could strategically bolster their claims of leadership. There is some merit in each of the positions, but also concerns that "in the final analysis, each of these three groups of stakeholders are intent on promoting their own interests to attain their selfish goals"²⁵. One of the factors fuelling an intense struggle for leadership of the sector is the perception that there are massive financial resources attached to the climate change agenda. This could also partly explain the strong resistance among public sector agencies to develop a distinct climate change policy. The use of their sectoral policies provides them with bargaining leverage in trying to assert and promote their own interests, couched in narratives they believe strongly conveys them. In the current institutional set up, the Ministry of Agriculture, Irrigation and Water Development (MoAI&WD) is not as prominent as the Ministry of Finance, Economic Planning and Development (MoFEP&D) and the Department of Environmental Affairs (DEA). In the donor-government working group, MoFEP&D is the chair while DEA is the secretariat, while MoAI&WD is just an ordinary member.

The politics in the sector is further underlined by the competing policy discourses identified earlier. The framing of the overarching national strategies is skewed in favour of treating climate change as a development challenge, while the majority of those in the agricultural sector favour promotion of solutions within the agricultural sector. Both the Malawi Growth and Development Strategy (MGDS) and the National Adaptation Programme of Action (NAPA) frame the climate challenge as an integral part of the sustainable development agenda, although most of the strategies proposed are predominantly agricultural sector oriented. Through its own sector specific initiatives, for the instance, the Agricultural Sector Wide Approach (ASWAp), the MoAI&WD promotes the implementation of interventions inspired by the ideals of climate smart agriculture as the best way to deal with the adverse effects of climate change in a predominantly agrarian society. The ASWAp has, for instance, attracted a pool of

resources from a consortium of donors, but its implementation does not seem to reflect commitment to the ideals of climate smart agriculture.

Funding for climate change activities in the agricultural sector is equally political. Many perceive funding as ad-hoc and not guided by transparent and accountable principles (Wolstenholme and Ng'ambi, 2010). Funding to the sector at aggregate nominal levels has increased in the last four years, but actual shares of the overall budgets have declined. This fact does not reflect the designation of managing climate change, natural resources and environment as a priority in the MGDS II. The paradox is that while the Department of Environmental Affairs (DEA) is the focal point of climate change activities, its level of funding is quite low to enable it to adequately fulfil this particular role. The funding to the Ministry of Agriculture, Irrigation and Water Development (MoAI&WD) has progressively improved, but the lion's share is taken up by the Farm Input Subsidy Programme (FISP) at the expense of initiatives that would enhance communities' resilience to the adverse effects of climate change in the sector, all because of the primacy of the politics of food security in the country (Chinsinga, 2010).

Implementation of the FISP has dominated the agricultural sector in Malawi since its introduction in the 2005/06 growing season. The apparent increase in the budgetary allocations to agriculture is almost entirely taken up by the FISP. Although the design of the FISP has the potential to promote climate change adaptation and mitigation through the ASWAp (in which climate change is an integral part of initiatives meant to improve food security and risk management), the actual implementation of the FISP does not fully pay attention to critical aspects that would have enhanced linkages between the understanding of the effects of climate change in the agricultural sector (Dorward, et al., 2008). This is attributed principally to the enormous political traction of FISP within the framework of the country's political economy: The legitimacy of the Malawian government is intimately linked to food security (Sahely, et al., 2005). The preoccupation of any government is, therefore, to achieve food security at any cost, in which other goals become secondary. The success of the agricultural sector is measured mainly on the basis of its ability to ensure food self-sufficiency, and how this success is achieved play second fiddle.

The politics of funding is further manifest in the enormous disparities between resources at the central and local government levels. The concentration of resources at the centre is difficult to justify in relation to adaptation goals, since critical adaptation activities within the NAPA framework would take place at the local level where vulnerability to climate change is the highest. This can be seen to reflect, to a very great extent, the politics of NAPAs as an externally driven initiative, even though it is meant to – and presented as – highlighting domestic priority areas for adaptation interventions.

The government is seen to have a stronger role in the actual implementation of activities on the ground. Obviously, donors have stronger influence on project based expenditures “which are often meant to address priority issues from their perspectives”²⁶ than for resources coming out of national budgets. Donors dominate the design of the projects since “they control and fund the generation of credible knowledge that informs the priorities to be addressed”²⁷. The situation is different when it comes to resources from the national budget. Instead of directing funding to where action toward adaptation is supposed to take place, the resources are concentrated at the centre, which is contrary to the underlying logic of the NAPA framework. As demonstrated in Annex 4, the level of funding to local governments shows that national level governments play a critical role in framing the general policy environment in which decisions critical to adaptation such as public expenditure, land use, and allocation of water resources are made (Chinsinga, et al., 2011).

5 Convergence or divergence? Implications for activities on the ground

The following section explores how two narratives identified in this paper play out in four different types of activities on climate change and agriculture that are being promoted – and funded – at present in Malawi: conservation agriculture, drought resistant varieties, agroforestry and tree crops, and weather-based insurance, as well as how they are critiqued.

5.1 Conservation agriculture

Conservation agriculture is described as a way of managing agro-ecosystems to achieve higher, sustained productivity, increased profits and food security while enhancing the environment (Mkwambisi, 2012). Three key principles underpin conservation agriculture, namely: minimum soil disturbance, permanent soil cover and diversified crop associations and rotations. Primary strategies for conservation agriculture highlighted by stakeholders include the following: 1) changing farming practices; 2) modifying crop type and varieties; 3) natural resource management and crop diversification; 4) intercropping, reforestation, micro-irrigation; and 5) water harvesting.

Conservation agriculture is highly contested although it is firmly on the agenda in the climate mitigation and adaptation policy realms. According to Milder et al. (2011), conservation agriculture offers the promise of locally adapted, low external input agricultural strategy that can be adopted by the poorest and most vulnerable farming communities. For this reason, some stakeholders observed that conservation agriculture “works for women and people with HIV and AIDS because it requires low

labour inputs yet it has huge potential of restoring soil health”²⁸. Conservation agriculture was further justified as “the only promising sustainable key to tackling hunger in the country”²⁹, and as sustainable because it improves soil fertility while reducing erosion and labour. Conservation agriculture techniques were described as “the simplest and cheapest, but they are ignored because they are not of interest to the private sector which is driven almost entirely by the desire to make profits”³⁰. The overall argument is thus that conservation agriculture should be promoted because long-term fertilizer use is not only too expensive, but also degrades the environment in particular by releasing the greenhouse gas nitrous oxide.

Critics argue that conservation agriculture does not produce benefits for climate change mitigation in terms of greenhouse gas emissions or carbon sequestration, nor does it help conservation of biodiversity and ecosystems. It is not attractive because “benefits are not immediate yet farmers are anxious to enhance productivity to satisfy their food requirements”³¹. According to one respondent, the full scale promotion of conservation agriculture is also constrained by “some evidence which suggest that conservation agriculture can actually decrease yields”³². This debate has created divisions even within the Ministry of Agriculture, Irrigation and Water Development to the extent that some argue that “large doses of inorganic fertilizers are the most practical solution to the challenging problem of food security in Malawi”³³. There are still others who adopt a middle of the road perspective, but on balance privileging inorganic fertilizers. They argue that “conservation agriculture has a part to play in maintaining soil fertility for climate change adaptation, but they cannot replace inorganic fertilizers”³⁴.

Milder et al., (2011) argue that conservation agriculture is difficult to promote in contexts of subsidies and related policies to agriculture. This was reflected by one informant arguing that “conservation agriculture is a non-starter in Malawi since farmers have been made to believe that the solution to poor yields is fertilizer use”³⁵. Perhaps partly for that reason, it is difficult for conservation agriculture to gain political traction in Malawi. Subsidies have proven to be the solution to the twin problems of hunger and pervasive food insecurity. Arguably, they have become an integral part of the social contract between the state and the citizens, and there is, so to speak, a political and economic bind of subsidies in Malawi. It was therefore argued that conservation agriculture cannot take off on a bigger scale and that farmers can only adopt conservation agriculture when fertilizers become unaffordable. There are thus no strong incentives for farmers to adopt conservation agriculture, since “they know they have access to cheaper fertilizer through the subsidy programme”³⁶.

The adoption of conservation agriculture is further constrained by existing land tenure arrangements. The majority of farmers cultivate on customary land which remains insecure due to stalled land reforms (Chinsinga, 2011). Since conservation agriculture requires

considerable investments to promote soil fertility and ecosystem management, “this may not be possible because of the insecurity of the customary land tenure system”³⁷. Female farmers are said to be particularly constrained as “their right to vital resources such as land is subject to male permission”³⁸.

5.2 Drought resistant seed varieties

There is debate around the types of seeds used to support climate change adaptation. The government, along with development agencies such as FAO, DFID, USAID and NORAD, argue that farmers should switch to improved seed varieties which are “high yielding and resistant to drought, diseases and pests”³⁹. The argument is that the attributes of hybrid seeds make them ideal for purposes of cushioning farmers against the adverse effects of climate change. According to one of the respondents, “drought resistant varieties are the best hope for dealing with the adverse effects of climate change”⁴⁰.

The contrasting positions underlie particular interests that different stakeholders are determined to defend, protect and promote. According to most NGO officials and local researchers, the promotion of hybrid seed varieties is primarily meant “to promote the foreign seed industry since most of the donors support the subsidy programme through the seed component”. The use of hybrid seeds is further promoted by donors with the strong ideological conviction that the agricultural sector can be strongly revamped if the private sector plays a dominant role. Thus through supporting the subsidy seed component, there is great opportunity to entrench the role of the private sector through input supply chain systems especially in the agro-dealer network. The government is strongly promoting the use of hybrid seed varieties. The use of hybrid seeds is advantageous to the government since high yields would bolster food security which is a key concern for any administration in the country.

This is challenged by most local NGOs and local researchers who argue that “local seed varieties are agronomically suitable to local conditions, disease and pest resistant to enable farmers to adapt to the adverse effects of climate”⁴¹. Some go further, arguing that “the dominance of maize on the country’s political agenda has ensured that the subsidy programme fails to promote crop diversification which is one of the critical elements of conservation agriculture”⁴². According to most NGO officials and local researchers, the promotion of hybrid seed varieties is primarily meant “to promote the foreign seed industry, since most of the donors support the subsidy programme through the seed component”. Some also argued that donors pushing for the prominence of the private in the agricultural sector “have close connections with companies that supply the bulk of seed to the subsidy programme”⁴³.

5.3 Agroforestry and tree crops

There is a renewed interest in agro-forestry and tree crops as it is seen as one way of sequestering carbon and combating global warming (Gladwin et al., 2011). As noted by one donor representative, “smallholder tree production can make a significant contribution to improving rural livelihoods and strengthening national economies, yet it is often ignored by policy makers and politicians”⁴⁴. Agro-forestry is seen as an ideal strategy for climate change adaptation and mitigation because it could increase farmers’ income and sequester carbon. It is regarded as “a good way of creating stable carbon stocks”⁴⁵.

The adoption of agro-forestry and tree crops has been somewhat slow because farmers do not see their benefits. According to one of the respondents, farmers’ reluctance is due to the fact that “fertilizer trees take between 6-10 years before they are ready to fertilize crops, yet farmers have to survive”⁴⁶. Just as in the case of conservation agriculture, farmers may find agro-forestry and tree crops less attractive since “they see inorganic fertilizers as the key to growing more food”⁴⁷. In defence of agro-forestry, its advocates argue that “they are a long-term sustainable measure to arrest further soil fertility decline and increase it since artificial fertilizers increase yields temporarily and eventually leaves the soil almost completely infertile”⁴⁸.

Most of the CSOs contended that advocacy for climate change as a development challenge especially among donors is “a veiled attempt to promote mitigation measures to deal with the problem of climate change”⁴⁹. They particularly singled out carbon sequestration initiatives as actually enhancing rather than reducing the vulnerability of farmers to the adverse effects of climate. Through these initiatives, it was argued that donors are “shifting the burden of addressing the adverse effects of climate change to the poor and vulnerable segments of society in developing countries like Malawi”⁵⁰.

Carbon sequestration initiatives have “introduced considerable competition between land for cultivation of food crops and trees”⁵¹. This is construed as a serious threat to the food security of the people since carbon sequestration initiatives have enormous substitutive effect as a result of the financial incentives associated with them. Consequently, threats to food security loom large because farmers are releasing positions of their already little land endowments for growing trees for carbon sequestration. For the critics of this narrative, construing climate in the agricultural sector as an integral part of the sustainable development agenda “masks the fact that farmers have to shoulder a disproportionate burden of implementing strategies to deal with the problem of climate change at expense of their own food security”⁵².

5.4 Weather Index Insurance as “the Magic Wand”

There is increasing focus on weather indexed insurance as an opportunity for farmers to surmount the so-called low maize productivity trap (LMPT). Some argue that a low maize productivity trap is inevitable in a situation where “the major constraint to agricultural investment in rural Malawi is lack of affordable credit for smallholder farmers, and more generally the absence of functioning markets for financial services” (Suarez and Linnerrooth-Bayer, 2010: 272). Moreover, banks are not willing to lend to smallholder farmers “primarily because of the risk that they would not pay back their loans if there were a drought”⁵³. Consequently farmers continue to utilize low yield seed varieties that, even with good rains, are unlikely to provide yields high enough for them to escape poverty.

Following this argument, the weather indexed insurance “makes it possible for banks to extend loans to smallholders which they would not have otherwise been able to access”⁵⁴. With such loans, farmers are therefore able “to purchase high quality seeds that would increase productivity and raise their standards of living”⁵⁵. The argument therefore is that such farmers would be in a better position to adapt to the adverse effects of climate change by, among other things, diversifying the portfolio of their livelihoods (Syroka, 2007).

The weather index insurance can be done even at the level of a country. This would “enable a country to access funds quickly in the event of a severe and catastrophic drought, reduce dependence on humanitarian appeals”⁵⁶. The Government of Malawi, with technical support from the World Bank, has for the last two years transferred a portion of the risk of severe drought to the international market using weather derivatives (World Bank, 2011a). This scheme works in such a way that “if a severe and catastrophic drought takes place, Malawi will receive funds from the weather derivatives within days”⁵⁷. Malawi’s premium for the scheme was financed with support from the Department for International Development (DFID). According to World Bank (2011b), weather derivatives can help countries plan and implement proactive responses to natural disasters. These transactions can be customized according to each country’s specific needs based on the type of weather hazard, desired level of protection, and the estimated financial loss associated with a severe and catastrophic event. This would thus make donor agencies switch part of their post-disaster response to supporting more efficient pre-disaster instruments (Suarez and Linnerrooth-Bayer, 2010).

While the proponents of this solution claim that weather indexed insurance schemes increase the credit worthiness of farmers and productivity which makes them less vulnerable to drought and other related climate change impacts, critics brand them as “exploitative commercial ventures preying on the plight of the poor by a consortium of profit seeking establishments”⁵⁸. They criticise the institutional arrangement for the weather

indexed insurance schemes that have been piloted in Malawi as exploitative of the poor farmers. This is attributed to the fact that the premium and loan interests make up a significant proportion (about 10 percent) of farmers’ expected income. The argument is that “the consortium of these actors [involved in the insurance schemes] has packaged the climate change message in commercial wraps and farmers cannot see because they have been blinded with loans they get from banks”⁵⁹.

There are also other concerns with the viability of the weather indexed insurance schemes. It is argued that weather index insurance is just part of the solution since enabling farmers to access loans for enhancing productivity raises questions of marketing and sale of the produce at profitable prices. If these questions are not addressed then “the expectations of the weather indexed insurance schemes cannot be fully realized”⁶⁰. The success of weather indexed insurance schemes further depends on the existence of reliable weather infrastructure in the form of reliable, timely and high quality data weather station networks.

According to World Bank (2011b), such infrastructure is critical to ensure adherence to strict quality requirements, including trustworthy ongoing daily collection and reporting procedures, daily quality control and cleaning and an independent source of data verification. Many interviewees doubted whether weather infrastructure of such quality exists in Malawi, and raised concerns about the ability of most farmers to understand the operative dynamics of the weather indexed insurance in order for them to make informed decisions. For example, they felt that the technicalities involved are rather complex “to be fully grasped by farmers, most of whom have very low levels of literacy”⁶¹. This invariably raises questions about fairness, equity and justice.

6 Discussion and conclusions

The preceding sections have shown how climate change discussions intersect with agricultural policy debates in Malawi. Returning to the initial questions on framings of the problems, actors supporting those and how outcomes are shaped, several insights can be drawn.

The debate in Malawi closely mirrors international debates on agriculture and climate change. While the term “climate smart agriculture”, increasingly prevalent as a unifying term at the international level, does not (yet) frame the discussion in Malawi, discussions around technologies for risk management, the role of improved seeds, and carbon sequestration are all familiar elsewhere. Looking closer, however, debates and outcomes are also shaped by domestic issues and concerns. There is little doubt or disagreement among stakeholders in the agricultural sector about the need to take climate change seriously, with close to 90 percent of the population dependent on agriculture as their principal source of livelihood, and the fact that five of the eight most serious

shocks that Malawians grapple with are agricultural in nature (Makoka, 2008).

The way problems and solutions differ between two dominant framings; one seeing it as an agricultural sector challenge, and another as a broader, development-focused challenge. These relate to broader debates about the viability of agriculture as a livelihood in a changing climate. But as discussed above, they must also be seen in the context of the struggle for leadership on climate change and agriculture between the Department of Environmental Affairs (the current lead on climate change in Malawi), the Ministry of Finance, Economic Planning and Development (MoFEP&D), both behind the “development” narrative, and the Ministry of Agriculture, Irrigation and Water Development (MoAI&WD) supporting the “agriculture” narrative. Interestingly, differences between the two narratives become less obvious when looking at some of the most common interventions in the agricultural sector on the ground (section 5), which mostly focus on sector-specific interventions. This also indicates that the different narratives so far have more bearing at the national than local levels. What they do suggest, however, is the strong bearing of the subsidy programme on activities and outcomes, showing how FISP promote some of the interventions (improved, hybrid seeds) while partly in direct conflict with, partly undermining other strategies or goals (agroforestry, conservation agriculture, crop diversification).

There is little doubt about the major role of donors, described by one interviewee as “a strong but invisible hand”⁶². The role of donors is particularly important in explaining the focus on carbon sequestration, for which the domestic benefits are particularly contested, but which nevertheless feature strongly in activities on the ground. The importance of donors is due to at least two factors. First, donors dominate both funding for priorities to be implemented and the generation of knowledge that informs the definition of priorities. As demonstrated in the narratives and the practical implications associated with these narratives, there are attempts on the part of some NGOs and government agencies to provide alternative ways of thinking about the priority issues and interventions in the sector, but they have gained little traction because of lack of independent funding streams, and further reinforced by the perception that local actors cannot generate credible knowledge that accurately inform action in the sector. This was ascertained during the fieldwork when one of the donor agency officials observed that “we encourage them to take a driver’s seat and our role is that of facilitator and knowledge provider”⁶³.

This does not, however, suggest that there is consensus among donors. They too push for different and sometimes conflicting priorities about what needs to be done in order to address the challenges of climate change in the agricultural sector. Overall, the point is that relative to the other actors identified in this study, donors tend to be dominant in the framing of narratives and prioritizing the courses of action to be undertaken. For example,

there are some donors that are pushing for agro-forestry and conservation agriculture, while others are supporting the subsidy programme. Donors like NORAD, Irish Aid and FAO are supporting agro-forestry as well as the fertilizer subsidy programme. As shown above, the subsidy programme is considered one of the reasons for the slow uptake of agro-forestry programmes. Likewise, we have also argued that support to the subsidy programme undermine efforts to promote conservation agriculture. One reason for these seemingly conflicting strategies (even from the same donor agency) may be the wish to be part of the subsidy programme’s success story. Support to the subsidy programme can also be seen as an ideological commitment from some donors to promote involvement of the private sector in agricultural development.

Like government departments, most NGOs did not have significant room for manoeuvre in terms of framing dominant policy narratives as well as prioritizing courses of action to be taken. As seen above, some NGOs have attempted to confront dominant policy framings of donors by producing alternative narratives, courses of action and knowledge. For instance, NGOs have argued for the promotion of local seed varieties and conservation agriculture, and have argued against weather index insurance schemes as well as attempted to generate alternative knowledge to the mainstream. However, their efforts have (at least as yet) failed to significantly influence the policy framing and priorities for action. While government agencies have strongly pushed for adaptation, in line with the conviction that northern countries have to bear the costs for addressing the adverse effects of climate change in the sector, donors have dominated on how these schemes are designed and implemented.

There are important implications of these dynamics. Ultimately, the burden of the interventions falls on the shoulders of farmers. Through carbon sequestration schemes, there is a huge temptation among farmers to dedicate their already limited land to the exercise which threatens food security. As argued by one interviewee, “the way in which these schemes are designed shifts the burden of adjustment to farmers especially since there is very little commitment to capacitate farmers on how to account for the carbon trade which greatly diminishes the prospects of benefits”⁶⁴. As illustrated in the foregoing paragraphs, donors dominate the framing of policy narratives as well as the exercise of defining priority issues in the sector.

There are numerous initiatives directed at dealing with the adverse effects of climate change mainly because of differing perspectives among donors. Arguably, the “room for manoeuvre” of key domestic actors are quite limited. Both government agencies and local NGOs are left with the choice of which donors’ perspectives to align themselves with as a way of accessing funding, knowledge and gaining legitimacy in the sector. This may help explain why there is a serious struggle for leadership of the climate change agenda in the public sector. Similarly, NGOs have taken on different positions depending on

who their source of funding is. However, in the final analysis the major donors are seen to dominate the policy perspectives and what gets done as a matter of priority in the sector. Although there are alternative framings about what needs to be done in the sector, the fertilizer subsidy programme still dominates despite increasing evidence of the negative effects on efforts to help Malawian agriculture adapt to climate change. The donor priorities determines who gets funded and on what exactly the funding is spent. Consequently government agencies and NGOs tailor their activities in line with the preferences of donors in the sector in order to access funding.

Notes

- 1 Acknowledgements: The authors are grateful to all respondents for making themselves available and engaging with the team in very insightful discussions. The authors are further grateful to all reviewers whose comments and observations have greatly improved the quality of this paper. All errors of interpretation remain our sole responsibility.
- 2 Similar case studies are carried out in Ethiopia, Ghana and Kenya as part of the Future Agricultures' Climate Change Theme.
- 3 Global entry into force on February 17, 2005
- 4 Interview with a researcher CARD from Bunda College of Agriculture, 18th August 2011, Lilongwe.
- 5 Interview with an official from World Bank, 15th October 2011, Lilongwe.
- 6 Interview with an official from Opportunity International Bank of Malawi (OIBM), 17th August 2011, Lilongwe.
- 7 Interview with an official Oxfam International, 20th August 2011, Lilongwe.
- 8 Interview with an official UNDP, 10th October 2011, Lilongwe.
- 9 This implies that climate change issues have to go along with policies and activities being undertaken by public and private institutions. This translates into public policy cycle (agenda setting, design, implementation, monitoring and evaluation) being dominated by climate change issues as well.
- 10 Ibid.
- 11 Ibid.
- 12 Interview with an official from the Department of Environmental Affairs, 28th August 2011, Lilongwe.
- 13 Interview with an official from the Department

of Environmental Affairs, 1st September 2011, Lilongwe.

- 14 Interview with an official from the Department of Environmental Affairs, 6th September 2011, Lilongwe.
- 15 Interview with an official from UNDP, 10th October 2011, Lilongwe.
- 16 Interview with a FAIR Malawi official, 30th August 2011, Lilongwe.
- 17 Interview with an Action Aid official, 22nd August 2011, Lilongwe.
- 18 Ibid.
- 19 Ibid.
- 20 Interview with an official from the Ministry of Finance, Economic Planning and Development.
- 21 Interview with an official from Action Aid Malawi, 15th September 2011, Lilongwe.
- 22 Interview with an official from CEPA, 14th October 2011, Blantyre.
- 23 Interview with an official from MoAI&WD, 11th September 2011, Lilongwe.
- 24 Interview with an official CARD from Bunda College of Agriculture, 19th August 2011, Lilongwe.
- 25 Interview with an official from Centre for Social Research (CSR), Chancellor College, 12th September 2011, Zomba.
- 26 Interview with an official from government, 19th August 2011, Lilongwe.
- 27 Interview with an official from the Department of Environmental Affairs, 9th September 2011, Lilongwe.
- 28 Interview with an official from FAO, 12th September 2011, Lilongwe.
- 29 Interview with an official from Oxfam, 28th August 2011, Lilongwe.
- 30 Interview with an official from Action Aid, 9th October 2011, Lilongwe.
- 31 Interview with an official from MOAI&WD, 8th August 2011, Lilongwe.
- 32 Ibid.
- 33 Interview with an official from Irish Aid, 19th September 2011, Lilongwe.
- 34 Interview with an official from Department of Environmental affairs, 7th October 2011,

	Lilongwe.		
35	Interview with an official from Action Aid, 23rd August 2011, Lilongwe.	58	Interview with an official from Oxfam International, 16th August 2011, Lilongwe.
36	Ibid.	59	Interview with an official from Action Aid, 20th August 2011, Lilongwe.
37	Interview with NGO representative, 18th September 2011, Lilongwe.	60	Interview with an official from CISANET, 18th September 2011, Lilongwe.
38	Interview with an official CEPA, 27th August 2011, Lilongwe.	61	Interview with an official from CEPA, 18th August 2011, Lilongwe.
39	Interview with donor representative, 18th August 2011, Lilongwe.	62	Interview with an official from Fair Malawi, 7th September 2011, Lilongwe
40	Interview with donor representative, 14th September 2011, Lilongwe.	63	Interview with donor representative, 14th September 2011, Lilongwe
41	Interview with an official Action Aid, 7th August 2011, Lilongwe.	64	Interview with an Action Aid official, 20th August 2011, Lilongwe.
42	Ibid.	65	Interview with an official from MoAI&WD, 19th September 2011, Lilongwe.
43	Ibid.	66	Interview with an official from Action Aid Malawi, 20th August 2011, Lilongwe.
44	Interview with donor representative, 14th September 2011, Lilongwe.	67	Ibid.
45	Ibid.	68	Interview with an official from the Ministry of Finance, Economic Planning and Development, 7th September 2011, Lilongwe.
46	Interview with an official from MoAI&WD, 24th August 2011, Lilongwe.	69	Interview with an official from Oxfam International, 15th September 2011, Lilongwe.
47	Ibid.	70	Interview with an official from Civil Society Network on Agriculture (CISANET), 10th October 2011, Lilongwe.
48	Interview with an official from Irish Aid, 14th September 2011, Lilongwe.	71	Interview with an official from National Association of Smallholder Farmers in Malawi (NASFAM), 18th September 2011, Lilongwe.
49	Interview with an official from FAIR Malawi, 7th September 2011, Lilongwe	72	Interview with an MP whose is a member of the Parliamentary Committee on Agriculture and Natural Resources (PCANR), 20th August 2011, Lilongwe.
50	Interview with an official from Action Aid, 15th October 2011, Lilongwe.	73	Interview with an official from Ministry of Agriculture, Irrigation and Water Development (MoAI&WD), 12th October 2011, Lilongwe.
51	Interview with an official from CEPA, 18th August 2011, Blantyre.	74	Interview with an official from Action Malawi, 20th August 2011, Lilongwe.
52	Ibid.	75	Interview with an official from Irish Aid, 14th September 2011, Lilongwe.
53	Interview with an official from World Bank, 10th October 2011, Lilongwe.	76	Interview with an official from Oxfam International, 15th September 2011, Lilongwe.
54	Interview with an official from Malawi Rural Finance Company (MRFC), 7th September 2011, Lilongwe.	77	Interview with an official from the Centre for Environment and Policy Advice (CEPA), 20th August 2011, Lilongwe.
55	Interview with an official from National Association of Smallholder Farmers in Malawi (NASFAM), 14th September 2011, Lilongwe.		
56	Interview with an official from World Bank, 10th October, 2011, Lilongwe.		
57	Ibid.		

- 78 Interview with an official from National Association of Smallholder Farmers in Malawi, 18th September 2011, Lilongwe.
- 79 Interview with an official from Action Aid, 20th August 2011, Lilongwe.
- 80 Interview with an official from FAIR Malawi, 9th October 2011, Lilongwe.
- 81 Interview with an official from the Department of Environmental Affairs (DEA), 24th August 2011, Lilongwe.
- 82 Interview with an official from CARD, Bunda College of Agriculture, 9th August 2011, Lilongwe.
- 83 Interview with a climate change expert from Chancellor College, University of Malawi, 22nd September 2011, Zomba.
- 84 Interview with an official from the National Association of Smallholder Farmers of Malawi (NASFAM), 18th September 2011, Lilongwe.
- 85 Interview with an official from CEPA, 20th August 2011, Blantyre.
- 86 Interview with an official from Christian Aid, 12th October 2011, Lilongwe.
- 87 Interview with an official from Malawi Economic Justice Network (MEJN) official, 11th September 2011, Lilongwe.
- 88 Interview with an official from CEPA, 20th August 2011, Blantyre.
- 89 Interview with an MP who is a member of the Parliamentary Committee on Agriculture and Natural Resources (PCANR), 20th August 2011, Lilongwe.
- 90 Interview with a World Bank official, 10th October 2011, Lilongwe.
- 91 Interview with an Oxfam International official, 15th September 2011, Lilongwe.
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Annexes

Annex 1: Key Actors in Climate Change and Agriculture Policy Processes

There are several actors that are active in the field of climate change and agriculture policy processes in Malawi. These actors can be distinguished into six main categories, namely: government agencies, development partners, civil society organizations, private sector, research institutions and the media. This annex focuses

on how the different categories of actors involved with policy processes on climate change and agriculture, and their inter relationships.

Government Agencies

They are considered as the primary actor in the climate change and agriculture policy processes. The main agencies include the Ministry of Agriculture, Irrigation and Water Development (MoAI&WD), the Ministry of Natural Resources, Energy and Environment (MoNRE&E), the Ministry of Finance, Economic Planning and Development (MoFEP&D) and the Parliamentary Committee on Agriculture and Natural Resources (PCANR).

There is a strong perception among stakeholders that Ministry of Agriculture, Irrigation and Water Development (MoAI&WD) should take a leading role in matters of climate change and agriculture policy processes. This is justified on the account that "climate change effects affect agriculture most than any other sector since Malawi is predominantly agrarian which generally threatens people's livelihoods and the economy as a whole"⁶⁵. There are, however, still others who feel climate change and agriculture policy processes should be coordinated by the Ministry of Natural Resources, Energy and Environment (MoNRE&E) because "it has the required capacity and technical knowhow on broad and specific climate change issues"⁶⁶. A final group of stakeholders advocated for the Ministry of Finance, Economic Planning and Development (MoFEP&D) to be designated as the coordinating body for climate change issues in the public sector, a responsibility that is currently entrusted to the Ministry of Natural Resources, Energy and Environment (MoNRE&E) through the Department of Environmental Affairs (DEA). MoFEP&D is touted as an ideal coordinating body because "of the crosscutting nature of climate change issues which makes climate change both an economic and development issue"⁶⁷.

The nature of climate change and agricultural policy processes is greatly affected by the jostling at the national level about which government agency should coordinate climate change issues. The intense struggle among government agencies is attributed to "the desire to control real or imagined massive financial resource flows associated with the climate change agenda"⁶⁸. The struggle for control of the climate change agenda has somewhat obscured the role of MoAI&WD yet the adverse effects of climate change are disproportionately felt in the agricultural sector.

The climate change discourses from the agricultural perspective are not accorded the prominence they deserve because the coordinating agency, the Department of Environmental Affairs (DEA) "exercises discretion with regard to which perspectives to prioritize depending on several interacting variables: disciplinary orientations of the responsible officers; personal networks; and the currency of certain perspectives"⁶⁹. For this reason, some sectoral policies have tended to dominate the climate change agenda than others since

“Malawi does not yet have a coherent policy framework on climate change”⁷⁰. The absence of a coherent policy framework does not work in favour of climate change and agricultural policy processes. The argument is that such a policy framework would have invariably given climate change and agriculture policy processes prominence being a sector hardest hit by the adverse effects of climate change.

The apparent marginalization of the climate change and agricultural policy processes is further manifested in the existing institutional arrangement as described in Box 2 below. In this institutional framework, the Ministry of Agriculture, Irrigation and Water Development is not accorded any prominent role. It is treated just like any other ministry “yet Malawi’s prospects as a nation will depend on how it will adapt to the adverse effects of climate change in the agricultural sector”⁷¹.

The role of the Parliamentary Committee on Agriculture and Natural Resources (PCNAR) on climate change and agriculture policy processes was described as insignificant. This has, however, to be situated in a proper context.

Box 2: Institutional Arrangement of Climate Change Management and Coordination

The Government of Malawi has established a Working Group on Climate Change championed by the Malawi Government through the Ministry of Finance, Economic Planning and Development and the United Nations Development Program (UNDP). This working group comprises representatives from the donor community and principal secretaries from government meant to have a cohesive approach in implementation of climate change activities. The group is co-chaired by Secretary for Economic Planning and Development and the UN Resident Coordinator representing the development partners. The Ministry of Natural Resources, Energy, and Environment through the Environmental Affairs Department is the secretariat. UNDP provides supporting roles to both the Chair and Secretariat. Further, a task force comprising government, civil society and development partners has been formed to develop a climate change implementation action plan for Malawi. This will allow stakeholders to have a common approach and opens possibility of pooling resources. The hope is that the Ministry of Finance, Economic Planning and Development will champion mainstreaming of climate change issues into our national development agenda.

Source: Government of Malawi (2008)

Since the transition to democracy in May 1994, parliamentary committees have not been strong. They have not been able to perform their functions fully due to inadequate or total lack of funding (Patel, et al., 2007). Parliamentary committees have become even more docile following the dominance of the governing party in the national legislature (Kanyongolo, 2010 and Chinsinga, 2010). They have more or less given up on their oversight role. This can be attributed to enduring legacy of the Malawi’s one party state political culture and the centralizing tendencies of the Executive branch

of government (Cammack, 2010). This translates into “the belief that [Parliamentarians] must not be critical of the Executive Branch or its policies which greatly weakens our capacity and will to monitor central government policy implementation and to recommend reforms”⁷².

Development Agencies

There are several development partners that are actively engaged in climate change and agricultural policy processes. These include World Bank, United Nations Development Programme (UNDP), European Union (EU), Department for International Development (DFID), Norwegian Agency for International Development (NORAD), World Bank, Food and Agriculture Organization (FAO) and Irish Aid among many others. The development partners have constituted themselves into a working group chaired by DFID. The main role of the working group is to promote strategic engagement with government and CSOs on matters of climate change.

As indicated earlier, development partners and government agencies further engage each other on matters of climate through a working group co-chaired by UNDP and MoFEP&D. The overall goal of the donor-government working group is to propagate a cohesive approach in the implementation of climate change issues. Nevertheless, development partners are considered as the most influential actor since they play a critical role by making funds available for climate change activities in the agricultural sector. They are consistently described as “the strong but invisible hand in climate change policies in general and in agricultural sector in particular”⁷³. This implies that development partners exert significant influence in dictating the overall policy direction even when “the strategic policy priorities are not in tune with those of domestic policy makers and stakeholders”⁷⁴. On the contrary most development partners view their role merely as “ensuring that domestic policy instruments are in tune with international standards, norms and practices to guarantee the attainment of desired strategic objectives and outcomes”⁷⁵.

The main concern was that coordination amongst development partners on climate change and agriculture policy processes is weak in Malawi even though they have a working group. Coordination amongst development partners is greatly limited to sharing information, and to a limited extent on cooperation in resource mobilization and programme implementation. According to Cammack, et al., (2003), various policy doctrines divide donors as do strategy and tactics, and sometimes personalities. This is, inter alia, underlined by the recurrent concern among both government agencies and CSOs that “[we] lack in [development partners] an impartial and honest broker on matters of climate change and agricultural policy processes”⁷⁶.

Civil Society Organizations

Civil society organizations active in the realm of climate change and agricultural policy processes include

both local and international NGOs. Some of the prominent ones include Centre for Environmental Policy and Advice (CEPA), Civil Society Network on Agriculture (CISANET), Farmers Union of Malawi (FUM), Total Land Care (TLC), Fair Malawi, Oxfam International, Trocaire, Christian Aid, Dan Church Aid (DCA), Norwegian Church Aid (NCA), National Association of Smallholder Farmers in Malawi (NASFAM), Citizens for Justice (CJ), Churches Action in Relief and Development (CARD) and Action Aid Malawi. The main area of focus for the CSOs is on advocacy. And in order to be effective in policy advocacy, they have constituted themselves into the Civil Society Coalition on Climate Change (CISONECC). The coalition is chaired by Churches Action in Relief and Development (CARD) with the Centre for Environmental Policy and Advice (CEPA) serving as a secretariat.

As a coalition, CISONECC has prioritized areas of advocacy as follows: 1) formulation of a national climate change policy; 2) influencing the formulation of national disaster risk management policy; 3) mobilization of a critical mass of expertise to the UNFCCC Conference of Parties; 4) implementation of climate related policies and legislation; 5) clarification in coordination of climate change issues in Malawi; and 5) capacity building in accessing existing climate funding baskets.

The CSOs also engage in research to garner credible evidence that can be utilized in their advocacy work. The research work is considered as a vital platform “for raising the voices and experiences of the ordinary people to be incorporated into policy discourses among government officials and development partners”⁷⁷. This particular role is fulfilled by CSOs that advocate specifically on climate change issues in the agricultural sector. The key players in this regard include Farmers Union of Malawi (FUM), National Association of Smallholder Farmers in Malawi (NASFAM) and Civil Society Network on Agriculture (CISANET), and ACT family. It is worth noting that the ACT Family coordinates climate change activities within the faith based organizations and churches. However, the ability of CSOs to fully capture the views of the ordinary people and effectively advocate for them in the policy processes is limited by lack of adequate technical capacity.

The engagement between government agencies, CSOs and development partners is expected to improve following the establishment of a national task force on climate change. It is tasked to develop a climate change implementation action plan for Malawi. It is difficult to assess its performance since it is new but its establishment increases the likelihood of coming up with a common approach to dealing with climate change and agricultural policy processes and the possibility of pooling resources for implementing various programmes.

Private Sector

Private sector actors are engaged in the climate change and agriculture policy processes through micro-insurance schemes. The main players include the Malawi Rural Finance Company (MRFC), Opportunity

International Bank of Malawi (OIBM), New Building Society Bank (NBSB), National Insurance Company (NICO) and the National Association of Smallholders Farmers in Malawi (NASFAM). These organizations are working in partnership with the government and the World Bank. The motivation of the private sector's involvement in the climate change and agricultural policy processes is that they are “keen to turn climate change into more of an opportunity than a curse”⁷⁸.

The micro-insurance schemes are described as “a means to address loss and damage in developing countries particularly vulnerable to climate change” (Suarez and Linnerrrooth-Bayer, 2010: 272). The consortium of private sector actors are implementing a weather indexed crop insurance in Malawi as a strategy to cushion farmers against the adverse effects of climate change in the agricultural sector. The justification for weather indexed insurance schemes is that “while promoting their own commercial interests, the companies involved would be addressing the concerns of farmers”⁷⁹. It is argued that these schemes enhance the credit worthiness of farmers and productivity which, in turn, make farmers less vulnerable to drought and other related climate change impacts. Although the weather indexed insurance was widely characterized as an exploitative commercial venture preying on the plight of poor farmers by the consortium of profit seeking establishments, the private sector commands significant influence in climate change and agricultural policy processes because of its “significant economic muscle bolstered by the dominance of development partners in climate change policy matters”⁸⁰.

Research Institutions

The main role of research institutions is to generate knowledge that feeds into the climate change and agriculture policy processes. The most active research institutions include the Centre of Agriculture Research and Development (CARD) at Bunda College of Agriculture, Centre for Social Research (CSR) and Leadership in Environment and Development (LEAD) Southern Africa both at Chancellor College, the Malawi Environmental and Endowment Trust (MEET), Coordination Unit for the Rehabilitation of the Environment and Chitedze Research Station in the Ministry of Agriculture, Irrigation and Water Development (MoAI&WD).

The main concern, however, is that these research institutions are unable to advance home grown research agenda. This is the case because “the government is unable to provide them [research institutions] with adequate funds”⁸¹. Most of the research projects on climate change and agricultural policy processes are externally driven. Consequently, these research institutions tend to “prioritize research initiatives with limited domestic relevance as long as there is ready funding attached to them”⁸².

The weak resource base of the research institutions further leverages the dominance of development partners in climate change and agricultural policy

processes. Since development partners are well endowed with resources, they are in a position to dictate research programmes which shape key strategic directions of the overall climate change policy agenda. They are thus equipped with both money and knowledge to drive the overall policy agenda in line with their priority interests. The dominance of development partners in sponsoring research projects in climate change and agriculture policy processes makes it difficult for domestic stakeholders to readily access the research findings. This somewhat undermines the efforts of local actors to strengthen their knowledge bases for advocacy on matters of climate change in the agricultural sector.

The Media

The media is playing a critical role in the dissemination of climate change and agricultural policy processes issues. Both print and electronic media are engaged either on their own terms or through contracts by specific organizations to disseminate information, policies and debates about climate issues in the agricultural sector. Several radio stations have special programmes sponsored or unsponsored on climate change issues in the agricultural sector. Community radio stations are “particularly instrumental on these matters because of their high degree interactive nature and focusing on local realities that communities can easily relate to”⁸³. Newspapers report on climate change issues in the agricultural sector either through general news stories, feature articles and special supplements. Through these avenues “the media helps quite a lot in setting agenda in the realm of climate change in the agricultural sector particularly through raising the profile of grassroots voices”⁸⁴.

Annex 2: Overview of funding for climate change interventions

The global financial architecture for climate change activities has evolved tremendously in recent years. The expansion of financial resources has been unprecedented. The World Bank (2009), for instance, estimated that the cost of mitigation could reach US\$ 400 billion a year between 2010 and 2030 while that of adaptation could average US\$ 75 billion per year between 2010 and 2050. It is generally acknowledged that adequate financial flows and investments are a critical aspect of a successful global strategy for addressing the adverse effects of climate.

The sources of finance directed at climate change interventions have multiplied into a mixture of bilateral and multilateral funding initiatives (UNFCCC, 2008). In this year alone, up to 14 new climate change related financing initiatives were announced making the sources of funding quite diverse. They, among other things, include national exchequers, foreign direct investment, official development assistance (ODA), carbon markets as well as the financial mechanisms of UNFCCC. The proliferation of climate change financing initiatives raise

concerns about coherence in the global financial architecture for climate change. The main concern is that the proliferation of the funding initiatives has led to unnecessary duplication and inefficient allocation of resources. This is mainly due to the fact that most of the project based funding streams are not often aligned sufficiently with national policies or systems as recommended by the 2005 Paris Declaration on Aid Effectiveness and the 2008 Accra Agenda for Action. There is also a concern about the extent to which funds are actually additional and not merely a rebranding of existing of official development assistance (ODA) (Tanner and Allouche, 2011).

Three main sources of climate change funds were identified in the agricultural sector in Malawi. These are government through the national budget, donors often through projects and private sector mainly through micro-level insurance schemes. The rest of this annex analyses these sources of funding for climate change activities in the agricultural sector.

Government Funds

The analysis of government funds to climate change activities in the agricultural sector draws heavily from the 2011/12 budget. This is important because the government introduced a zero deficit budget concept which resulted in dramatic decline in grants as a source of budget financing from about 30 percent to 21 percent. The proportion of grants is expected to decline further to 13 percent within the next two years. Despite the change, the budget framework maintains its usual emphasis on the core sectors of education, agriculture and health which took about 34.3 percent of the 2011/12 budget (CEPA, et al., 2011). The budgetary allocation to the Ministry of Agriculture, Irrigation and Water Development was the second largest at MK 37.7 billion representing 12.4 percent of the total budget compared to 11.5 percent in the 2010/11 revised budget.

A critical analysis was undertaken to assess the budgetary allocations to matters of climate and environmental management. Out of a total budget of MK 304 billion, MK 90.3 billion representing about 29.7 percent was allocated to the eight sectors prioritized in the NAPA including the Green Belt Initiative. The total budgetary allocation to the Ministry of Natural Resources, Energy and Environment (MoNRE&E) was MK 2.7 billion representing 0.90 percent of the total national budget. This is clearly inadequate for a ministry entrusted with coordinating implementation of climate change activities across all sectors. The allocation to MoNRE&E include two NAPA sectors of energy and environment (CEPA, et al., 2011). Table 2 summarizes the budgetary allocations to the Ministries and Departments engaged in climate change and environmental management programmes.

The review of the budgetary allocations to sectors with NAPA interventions shows that the nominal aggregates have been increasing over the last four years. Many stakeholders argued that these allocations are potentially sufficient to address the NAPA orientated

Table 1: Budgetary Allocations to Ministries and Departments in the Climate Change Sector

Sector	Budgetary Allocation in 2011/12 (Malawi Kwacha)	Budgetary Allocations in 2011/12 (US\$)
Natural Resources, Energy and Environment	2, 742,540,000	16,422,395.20
Human Health	37, 715,020,000	225,838,443.11
Wildlife	26,766,460,000	160,278,208.59
Water	7,270,420,000	43,535,449.10
Gender	1,675,870,000	10,035,149
Green Belt Initiative	200,000	1,197.00
Information and Civic Education	915,120,000	5,479,760.47
Local Councils-Agriculture	517,102,666	3,096,423.14
Local Councils-Gender	127,120,096	76,120.34
Local Councils-Health	9,992,388,280	59,834,660.00
Local Councils-Water	33,478,961	200,472.82
Local Councils-Fisheries	70,330,959	421,143.43
Local Councils-Environment	51,897,175	95,192.66
Local Councils-Forestry	35,333,571	211,578.26
Aggregate for Climate Change and Environment	90,262,611,708	540,494,680.88
National Total	303,724,220,000	1,818,707,904.00

Source: CEPA, MEJN, Christian Aid, COPI (2011)

interventions but there are concerns with the intra-sectoral allocation to budget actions. It was consistently observed that “these have been extremely weak, compromising actions that would directly address NAPA interventions”⁸⁵. The main concern, however, is that the aggregate allocation to NAPA sectors as a proportion of the national budget has been declining over the last four years. This was considered as a huge paradox because “issues of managing climate change, natural resources and the environment were singled out as one of the priority action areas in which case the expectation was that public resource allocation would take this into account”⁸⁶.

Most stakeholders were concerned with how the Department of Disaster Management Affairs (DoDMA) is treated within the framework of the national budget. It does not feature at all in the NAPA framework and its recurrent expenditures fall under the Office of the President and Cabinet. The budgetary allocations for DoDMA are often lumped up in the contingency vote under the Treasury, which for many stakeholders, “compromises timely response to natural disasters when they strike”. This also makes it difficult to ensure efficient utilization of resources since “the resources are centralized while the services are required in rural communities”⁸⁷. The inefficient utilization of the resources is inevitable since activities have to be directed from the capital city, Lilongwe, raising transaction costs enormously.

As stated earlier, the proportion of budgetary allocations to the NAPA sectors has been declining relative to other sectors. Table 2 below illustrates the declining trends in budgetary allocations to the NAPA sectors. It, for example, shows that the proportion of budgetary allocations to agriculture, environment, lands and natural resources, wildlife and culture, health and

gender are lower than the 2010/11 budgetary allocations. This reflects a reduction in emphasis on NAPA sectors in spite of the increase in nominal budget allocation from MK 86.3 billion in the 2010/11 revised budget to MK 90.3 billion in the 2011/12 budget estimates for all concerned sectors.

There are enormous disparities in the distribution of resources between central and local governments. The greater proportion of resources is retained at the centre yet the NAPA clearly stipulates that the immediate and priority interventions should be implemented in the rural communities because these are more vulnerable to the adverse impacts of climate change. The review indicates that of the MK90.3 billion allocation to all sectors involved in climate change and environmental management programmes only MK 10.8 billion was allocated to local councils for the implementation of these programmes. This represents 12 percent of the total budgetary provision for climate change activities and 3.6 percent of the total national budget. There is a further concern since of the MK 10.8 billion allocated to local councils, MK 10 billion is for the health sector which means, only 0.8 billion, representing 0.9 percent is available for implementation of direct climate change interventions in the rest of the sectors.

This is not unique to the climate change sector. There have been problems with financial allocations to the devolved sectors since the onset of decentralization policy reforms over a decade ago (Chiweza, 2005 and Chinsinga, 2009). These experiences raise questions about the government’s commitment to effective implementation of the decentralization policy. However, in a broader context, the disparities in the financial allocations at these two levels of government raise an important aspect of the politics about programme

implementation of externally driven policy frameworks (Tanner and Allouche, 2011). Most of the stakeholders argued that there is half hearted commitment to the implementation of the NAPA orientated interventions “since NAPAs have been formulated in a top down fashion with almost negligible input from developing countries”⁸⁸.

A special focus on the agricultural sector revealed that there has been satisfactory performance in the three of the four NAPA interventions. Specific targets were clearly delineated with the requisite budgetary support. It was noted that there is lack of notable progress in the development of early warning systems in the sector’s budget. However, the apparent success of the sector needs to be assessed in the context of the Farm Input Subsidy Programme (FISP). In the 2011/12 budget, the sector allocated up to MK 33.1 billion (about 86.4 percent) of the MK 38.3 billion to actions that relate to the sectoral NAPA interventions when budgetary expenditures on the FISP are taken into account.

However, when the FISP expenditures are netted off, the NAPA budget actions in the sector attract only MK 10.6 billion (27.8 percent) of the annual budget. FISP contributes to adaptation to climate change since the programme encourages use of improved crop varieties and enhances food security at household level. FISP is also a potential contributor to worsening climate change effects in the country through the promotion of excessive use of inorganic fertilizers. The argument is that excessive use of inorganic fertilizers undermines ecological sustainability which can accelerate the magnitude of the adverse effects of climate change. In the final analysis, however, the implementation of the FISP has resulted neither from the NAPA nor from the government’s

commitment to issues of climate change and environment management.

Several challenges were identified with the government funding stream for climate change activities in the agricultural sector. Some of the notable ones included the following:

- The proportion of budgetary resources to the sectors that deal with climate change issues has been declining as a proportion of the national budget despite increases in the nominal sectoral allocations. This does not reflect the designation of managing climate change, natural resources and the environment as one of the key national priorities.
- Some of the key sectors such as energy, forestry, wildlife, fisheries, information and civic education do not have specifically budgeted for activities yet there are very critical to the achievement of the NAPA objectives and aspirations.
- For most sectors, annual budget targets are inconsistent from one year to the next and where indicators of performance exist, they are not consistent over time. This makes it rather difficult to definitively assess progress toward the desired targets.
- Resources are concentrated at the central government across all the NAPA sectors. This leaves meagre resources for implementation of programmes at the local government level which

Table 2: Trends of Budgetary Allocations to Climate Change Related Sectors

Programme Area	2008/09 Approved	2009/10 Approved	2010/11 Approved
Agriculture and food	14.11%	12.57%	15.3%
Integrated Rural Development	----	----	1.3%
Environment, Lands and Natural Resources	1.03%	1.47%	1.0%
Tourism, Wildlife and Cultural	0.55%	0.45%	0.5%
Water, Sanitation and Irrigation	3.37%	2.04%	0.3%
Trade, Industry and Private Sector Development	0.49%	0.46%	0.6%
Vulnerability, Disaster and Risk Management	----	0.15%	0.2%
Health	18.29%	13.24%	23.3%
Education	8.46%	12.22%	20.3%
Gender, Youth	0.69%	0.65%	1.1%
Roads, Public Works and	7.52%	14.87%	7.5%
ICT and Research and Development	0.51%	0.77%	0.5%
Energy and Mining	0.86%	0.10%	0.2%
Economic Governance	2.61%	6.17%	6.4%
Democratic Governance	2.92%	3.98%	11.3%
Public Administration	28.75%	16.21%	10.2%
Statutory and Unforeseen	8.93%	11.04%	0.1%

Source: CEPA, MEJN, Christian Aid, COPI (2011)

is closest to the rural communities most vulnerable to risks associated with climate change.

- The lack of consistency in the national budget framework, structure and targeting pose significant challenges in establishing links between resources allocated for specific interventions from one year to the other. This further threatens the loss of valuable information on continuity of actions in focal areas and tracking progress thereof over time.

Donor Funds

It is somewhat difficult to fully capture the magnitude of resources that donors are investing in climate change issues in the agricultural sector. As already stated earlier, this is a challenge because the country does not have a coherent policy framework for climate change either generally or with reference to the agricultural sector. The existence of a wide range of policy instruments that have at least some bearing on climate change issues in the agricultural sector has invariably led to scattered donor interventions. Nevertheless, an attempt was made to sketch the magnitude of donor support to climate change issues in the agricultural sector in Malawi. Table 3 below summarizes the contributions of major donors to the sector as of January 2010 (GoM/UN, 2010).

While there is proliferation of donor supported climate change interventions in Malawi, a large proportion of donor support is channeled through the National Climate Change Programme launched in 2010. According to most stakeholders, this programme is designed to mainstream and address climate change issues in the national development agenda. Its main aim is to build the country's response framework and strategy to support national and local government institutions in delivering long-term climate resilient and sustainable development.

One of the main programmes implemented is Africa Adaptation Programme (AAP). It aims to support long term efforts of the government to build capacity to successfully implement its own adaptation programmes. It stresses on the necessity to develop evidence based strategic framework and an implementation plan to respond to the challenges that climate change poses to sustainable economic development and national food security. Through this programme, the following have reportedly been achieved: 1) assessment of current

hazard mapping capacity; 2) financial assessment to strengthen capacity and design for dynamic adaptation and mitigation; 3) the conceptual analysis on the applicability of climate change, environment and natural resources sector wide approach (CCENRM SWAp); and 4) preparations for the development of a climate change policy.

Besides the absence of the policy on climate change generally and with particular reference to the agricultural sector, the difficulty to tracking donor funds in the sector is attributed to weak mechanisms for coordination and monitoring. As demonstrated earlier, the Department of Environmental Affairs (DEA) as a coordinating body does not have adequate resources to play its role effectively. Many stakeholders argued that "there is massive resource flow to the climate change sector in Malawi but we simply do not have the capacity to keep track of these resources"⁸⁹. Moreover, the Parliamentary Committee on Agriculture and Natural Resources (PCANR) is essentially non-functional. Some of the donor funds are channeled through NGOs and civil society organizations.

Private Sector Funds

The main source of private sector funds is the weather indexed insurance schemes which are being implemented in Malawi on a pilot basis. These schemes are described as "an innovative financial product that has been introduced in recent years in countries as diverse as India, Malawi, Mongolia and Thailand"⁹⁰. These schemes are justified as a strategy for smallholder farmers to hedge against agricultural production risks such as drought or floods. The schemes pay out in events that are triggered by a publicly observable index such as rainfall recorded on a local rain gauge (Gine, 2009). Consequently, these payouts can be calculated and disbursed quickly and automatically without the need for households to formally file a claim.

In Malawi, the consortium of banks and insurance companies working in partnership with NASFAM and the World Bank piloted the weather indexed insurance schemes in Kasungu, Nkhosakota, Lilongwe North and Chitedza. The schemes are described as more efficient and cost effective than the traditional crop insurance schemes. Through these schemes farmers can easily access finance and be protected from weather risks in the same way as the loan providers. Prior to the launch of the pilot weather indexed insurance schemes, it is estimated that only 50,000 out of millions of smallholder

Table 3: Donor Contributions to Climate Change in Malawi

Development Partner	Amount in US\$
DFID	1,325,000
Norway	2,372,271
Spain	80,000
UNDP	252,375
World Bank/Terra Africa	1,545, 282

Source: Department of Environmental Affairs (DEA), January 2011

Annex 3: Agricultural sector policies of relevance to climate change

Policy	Responsible Ministry (ies)
Vision 2020 (1998-2020)	Ministry of Finance, Economic Planning and Development
Malawi Growth and Development Strategy (MGDS) II (2012-2016)	Ministry of Finance, Economic Planning and Development
Agricultural Sector Wide Approach (ASWAp) (2008-2012)	Ministry of Agriculture, Irrigation and Water Development and Ministry of Finance, Economic Planning and Development
National Adaptation Programme of Action (NAPA) (2005)	Department of Environmental Affairs in the Ministry of Natural Resources, Energy and Environment
National Strategy for Sustainable Development (2004)	Department of Environmental Affairs in the Ministry of Natural Resources, Energy and Environment
National Forestry Policy (1996)	Department of Environmental Affairs in the Ministry of Natural Resources, Energy and Environment
Community Based Forest Management, a supplement to the National Forestry Policy (2003)	Department of Forestry in the Ministry of Natural Resources, Energy and Environment
National Fisheries and Aquaculture Policy (2001)	Department of Forestry in the Ministry of Natural Resources, Energy and Environment
National Strategy for Sustainable Development (2004)	Department of Environmental Affairs in the Ministry of Natural Resources, Energy and Environment
National Forestry Policy (1996)	Department of Environmental Affairs in the Ministry of Natural Resources, Energy and Environment
Community Based Forest Management, a supplement to the National Forestry Policy (2003)	Department of Forestry in the Ministry of Natural Resources, Energy and Environment
National Fisheries and Aquaculture Policy (2001)	Department of Forestry in the Ministry of Natural Resources, Energy and Environment
National Energy Policy (2003)	Fisheries Department in the Ministry of Agriculture, Irrigation and Water Development
National Land Resources Management Policy and Strategy (2000)	Department of Energy Affairs in the Ministry of Natural Resources, Energy and Environment
Agricultural Research Master Plan (2001)	Department of Land Resources Conservation in the Ministry of Agriculture, Irrigation and Water Development
Food and Nutrition Policy (2005)	Ministry of Agriculture, Irrigation and Water Development
National Nutrition Policy	Ministry of Agriculture, Irrigation and Water Development
National Irrigation Policy and Development Strategies (2000)	Department of HIV, AIDS and Nutrition in the Office of the President and Cabinet
National Water Policy (2005)	Department of Irrigation in the Ministry of Agriculture, Irrigation and Water Development
National agriculture Extension Policy in the New Millennium (2000)	Department of Water in the Ministry of Agriculture, Irrigation and Water Development
National Environmental Health Policy (1999)	Department of Extension in the Ministry of Agriculture, Irrigation and Water Development
Malawi Decentralization Policy (1998)	Ministry of Health and Population Services
Disaster Preparedness and Management Policy	Ministry of Local Government and Rural Development
Disaster Preparedness and Management Policy	Department of Poverty and Disaster Management Affairs in the Office of the President and Cabinet

Source: Jumbe, et al, 2008

farmers in the country were able to secure credit from formal financial institutions. The exact magnitude of resources invested in weather indexed insurance schemes is not known but it is estimated that by 2008 the consortium had sold farmers policies worth US\$ 2.5

million. Many stakeholders are actually concerned with the apparent lack of transparency in the resources flows in the industry because “the primary aim of those involved is to maximize profit at the expense of poor and vulnerable farmers”⁹¹.

Annex 4: Abbreviations

AIDS	Acquired Immuno Deficiency Syndrome
ASWAp	Agricultural Sector Wide Approach
CARD	Centre for Agriculture Research and Development
CARD	Churches Action in Relief and Development
CCENRMSWAp	Climate Change, Environment and Natural Resources Sector Wide Approach
CEPA	Centre for Environmental Policy and Advice
CISANET	Civil Society Network on Agriculture
CISONECC	Civil Society Coalition on Climate Change
CJ	Citizens for Justice
CSOs	Civil Society Organizations
CSR	Centre for Social Research
DCA	Danish Church Aid
DEA	Department of Environmental Affairs
DFID	Department for International Development
DoDMA	Department of Disaster Management Affairs
EU	European Union
FAO	Food and Agriculture Organization
FGDs	Focus Group Discussions
FISP	Farm Input Subsidy Programme
FUM	Farmers Union of Malawi
GDP	Gross Domestic Product
GoM	Government of Malawi
HIV	Human Immuno Virus
IDS	Institute of Development Studies
IHS	Integrated Household Survey
LEAD	Leadership in Environment and Development
LMPT	Low Maize Productivity Trap
MEET	Malawi Environmental and Endowment Trust
MGDS	Malawi Growth and Development Strategy
MoAI&WD	Ministry of Agriculture, Irrigation and Water Development
MoFEP&D	Ministry of Finance, Economic Planning and Development
MoNRE&E	Ministry of Natural Resources, Energy and Environment
NAPA	National Adaptation Programme of Action
NASFAM	National Association of Smallholder Farmers in Malawi
NCA	Norwegian Church Aid
NGOs	Non Governmental Organizations
NORAD	Norwegian Agency for International Development
NSO	National Statistical Office
ODA	Overseas Development Assistance
PCANR	Parliamentary Committee on Agriculture and Natural Resources
PEI	Poverty Environmental Initiative
TLC	Total Land Care
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

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