

A MONTPELLIER PANEL BRIEFING PAPER 2016



**SET FOR SUCCESS:  
CLIMATE-PROOFING THE  
MALABO DECLARATION**





# SET FOR SUCCESS: CLIMATE-PROOFING THE MALABO DECLARATION

## INTRODUCTION

Despite continuous positive economic growth at an average of 5% per year,<sup>1</sup> Africa needs accelerated economic development if it is to cope with the increasing demands for food, water and energy challenged by a rapidly growing population, rapid urbanisation and climate change. The pressure on African countries to boost productivity and accelerate growth is now higher than ever, and is being further complicated by the potential adverse impacts of climate change and extreme weather events.

By the year 2050 the impacts of climate change and extreme weather events, such as the current El Niño, could increase hunger and child malnutrition by as much as 20%, reversing the gains achieved through the Millennium Development Goal process and jeopardising the success of the Sustainable Development Goals (SDGs).<sup>2</sup>

Agriculture is the backbone of African economies, accounting for as much as 40% of total export earnings and employing 60 – 90% of Africa's labour force. More than half of households' income originates in the agriculture sector. Agriculture will continue to be a priority for Africa, alongside efforts towards industrialisation.<sup>3</sup> Using the targets set out in the Malabo Declaration African governments now need to unlock the continent's agriculture sector in a way that captures the synergies between climate adaptation and mitigation and identifies and reduces the inevitable trade-offs. A sustainable agriculture sector has the potential to contribute to food and nutrition security, poverty reduction and sustained economic growth, in a way that preserves the natural resource base on which it depends.

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## FARMING UNDER CLIMATIC EXTREMES

Crops, grazing land, trees, fisheries and livestock are negatively impacted by climatic extremes, including too much or too little water, too high or too low temperatures and a shortening length of growing seasons.<sup>4</sup> Moreover, millions of farmers own less than one hectare of land, live on less than US\$1 a day and do not produce enough to feed their families. They are especially vulnerable to climate change.<sup>5</sup> The 2015-16 El Niño, probably the strongest on record, has affected the food security of a vast number of vulnerable people around the globe.<sup>6</sup> Achieving food security for all will become increasingly challenging.

Across southern Africa El Niño is leading to the extreme drought affecting this year's crop. Worst affected by poor

rains are Malawi where almost three million people are facing hunger, and Madagascar and Zimbabwe, where last year's harvest was reduced by half compared to the previous year because of substantial crop failure. Production and availability of food have both fallen and as a direct result food prices across southern Africa have been rising. The price of maize – the staple crop for most of the region – was 73% higher in Malawi in February than the three-year average for that time of year.<sup>7</sup>

A very strong El Niño is not the only manifestation of climate change. Average and extreme temperatures and rainfall will all change, almost invariably for the worst.

### CLIMATE CHANGE EFFECTS IN AFRICA

Over the next 100 years, with continued rapid economic growth and current energy consumption patterns heavily reliant on fossil fuels, it is likely that:

- Mean temperatures across Africa will rise faster than the global average, exceed 2°C, and may reach as high as 3°C to 6°C greater than pre-industrial levels.
- The drier subtropical regions will warm more than the moister tropics.
- Northern and southern Africa will become much hotter (as much as 4°C more) and drier (precipitation falling by 15% or more).
- Precipitation trends are not yet clear in East and West Africa.
- Sea levels will rise, with serious consequences for agricultural and urban land in the Nile Delta and certain parts of West Africa.<sup>8</sup>

While weather events such as El Niño are recurring phenomena, climate change will increase their severity substantially, acting as a risk multiplier for food insecurity, putting the livelihoods of millions of smallholder farmers at risk and changing the way they farm irrevocably. To make food systems more resilient and able to meet changing needs, there is a need to better understand how climate change and weather extremes intersect with population growth, urbanisation and socio-economic changes. Measures to help smallholders, particularly those in remote and marginal environments dependent on rain-fed agriculture, cope with drought, will depend on increased farming productivity and diversification to off-farm activities. These will include the design of social safety nets, strategic food reserves and improvements in food storage and supply systems.

At the same time, achieving the United Nations Framework Convention on Climate Change (UNFCCC) goal of limiting average global temperature rise to 2°C will be challenging, if not impossible, without leveraging the potential of the agriculture sector. The Intergovernmental Panel on Climate Change (IPCC) estimates that agriculture contributes 14% of global GHG emissions.<sup>9</sup> Emissions of nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>), which originate from livestock and soil, are nearly 300 and 35 times more powerful than CO<sub>2</sub> respectively<sup>10</sup> over 100 years. N<sub>2</sub>O emissions from soils alone constitute around 40% of non-CO<sub>2</sub> emissions. Yet, emissions from agriculture are expected to continue to grow by around 1% per year – an increase incompatible with a stable climate future.<sup>11</sup>



However, there are agricultural technologies and processes that, if applied on sufficient scale, could help address this challenge. An effective approach to increase adaptive capacity, while reducing GHGs, is to prioritise land use change strategies. For example, Africa's agricultural potential could be unlocked and the resilience of smallholder farmers increased, if irrigation capacity was significantly scaled-up beyond the current 6% of arable land, and improved land management practices and various forms of soil carbon sequestration were implemented across the continent.<sup>12</sup>

CSA needs to be seen as a way of helping realise the goals set out in countries' National Agriculture Investment Plans (NAIPs) in alignment with the Comprehensive Africa Agriculture Development Programme's (CAADP) Malabo Declaration. At the same time, the increased attention to building resilience in rural and urban areas and managing climate risks will also address existing and underlying vulnerabilities and weaknesses in food systems and governance. By seizing the moment, the challenges of climate change can be turned into opportunities to reform and strengthen food systems and achieve food and nutrition security for all.

### IN THIS CONTEXT, CLIMATE-SMART AGRICULTURE (CSA) AIMS TO:

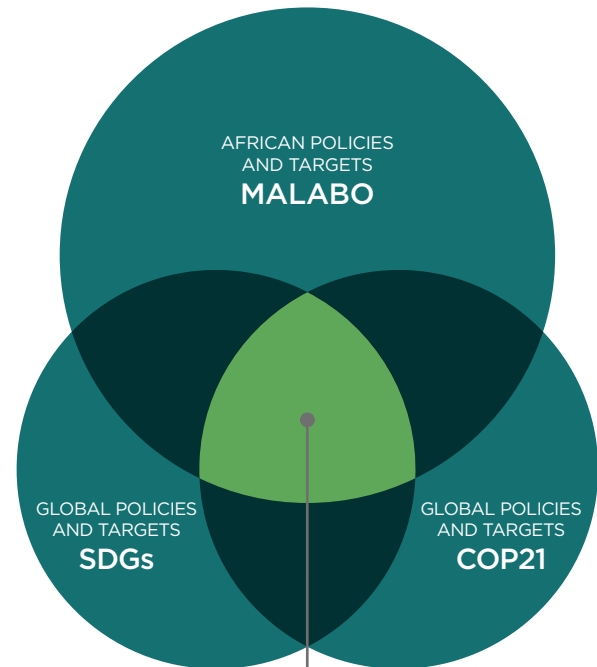
- Provide adaptation and resilience to shocks
- Generate adaptation and mitigation as co-benefits
- Take a location-specific and knowledge-intensive approach
- Provide integrated options that create synergies and reduce trade-offs.<sup>13</sup>



## PAVING THE WAY FOR CLIMATE COMPATIBLE DEVELOPMENT - THE MALABO DECLARATION

While international and continental policy processes are crucial for aligning core development objectives and goals, there is often a disconnect between the levels of commitment and implementation at national or local levels. Governments inevitably have many concurrent and often conflicting commitments and hence require clear goals that chart a way forward to deliver on the shared agenda of CAADP, the SDGs, and COP21.

CAADP, Africa's agricultural transformation policy framework, aims to achieve and sustain higher economic growth through agriculture-led development. Better strategic planning and increased investment in the sector are its main instruments for reducing hunger and poverty, expanding food and nutrition security and ensuring growth in exports. Building on CAADP, the Malabo Declaration on 'Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods', adopted in 2014, aims to improve nutrition and food security and increase agricultural productivity by 2025 while building resilience to the effects of climate change. With the Malabo goals targeted at 2025—five years before the Sustainable Development Goals (SDGs) targets—Africa could be leading the way on sustainable agricultural development and sustained economic growth.



### BUILD RESILIENCE

- EARLY WARNING SYSTEMS
- CAPACITY BUILDING
- PRIORITIZE VULNERABLE AGROECOSYSTEMS
- MAINSTREAM ADAPTATION AND RESILIENCE INTO POLICY MAKING AND INSTITUTIONS



## OVERVIEW OF THE MALABO DECLARATION (2014)<sup>14</sup>

1. **Recommitment to the principles and values of the CAADP process**
2. **Recommitment to enhance investment in agriculture**  
Uphold 10% public spending target.  
Operationalisation of the Africa Investment Bank.
3. **Commitment to ending hunger by 2025**  
At least double productivity (focusing on inputs, irrigation, and mechanisation).  
Reduce post-harvest losses at least by half.  
Reduce stunting levels to 10%.
4. **Commitment to halving poverty by 2025, through inclusive agricultural growth and transformation**  
Sustain annual sector growth in agricultural GDP at least at 6%.  
Establish and/or strengthen inclusive public-private partnerships for at least five priority agricultural commodity value chains with strong linkage to smallholder agriculture.  
Create job opportunities for at least 30% of the youth in agricultural value chains.  
Preferential entry and participation by women and youth in the agribusiness sector.
5. **Commitment to boosting intra-African trade in agricultural commodities and services**  
Triple intra-Africa trade in agricultural commodities.  
Fast track continental free trade area and transition to a continental common external tariff scheme.
6. **Commitment to enhancing resilience in livelihoods & production systems to climate variability and other shocks**  
Ensure that by 2025 at least 30% of farm, pastoral and fisher households are resilient to climate change and weather-related risks.  
Enhance investments for resilience building initiatives, including social security for rural workers and other vulnerable social groups, as well as for vulnerable ecosystems.  
Mainstream resilience and risk management into policies, strategies and investment plans.
7. **Commitment to mutual accountability to actions and results**  
Through the CAADP Result Framework - conduct a biennial Agricultural Review Process.

However, the Malabo Declaration underemphasises the risk for agriculture, smallholder farmers and food security under climate change and fails to highlight the importance of investments in strengthening Africa's science capacity. In order to achieve the high-level commitments set out in the Malabo Declaration and in other global processes such as the SDGs and the Paris climate agreement, particularly in relation to climate change, African governments must support programmes that will prioritise the strengthening of smallholder farmers' resilience and improving their livelihoods. To do so, national investment plans are increasingly taking up CSA objectives and while this is a good start, more action has to be taken to scale-up programmes that have proven impactful and scalable.



## SCALING-UP SUCCESSES

There are many challenges to implementing effective climate change strategies at national and local levels, including limited financial resources, strained institutional capacities, technical barriers, lack of training on sustainable farming techniques and poor infrastructure. These challenges can be overcome with stronger political leadership, planning, coordination and institution-building. African governments need to integrate climate change planning across government departments and ministries while food security and agricultural development policies should complement and reinforce national climate change adaptation and mitigation goals.

Many innovative agricultural practices already take place across Africa with the capacity and potential to increase agricultural productivity, build resilience and improve farmers' livelihoods. Yet, these programmes remain largely unknown. They are often small in scale, set up by an international or local NGO or funded by donors. There is an urgent need for these programmes to be identified so that the most effective can be taken to scale.

Approaches to building resilience and achieving co-benefits for mitigation can take many forms. These projects and agricultural practices are scalable or can be replicated in other contexts. The success stories can be classified in many different ways. We have chosen the following categories: political leadership and capacity building, technology and innovation, risk mitigation, sustainable intensification and financing. Each emphasises the key interventions that need to be implemented.





## POLITICAL LEADERSHIP AND CAPACITY-BUILDING

For Africa to successfully scale-up CSA practices requires the creation of a knowledge economy that builds human and institutional capacities, supports innovation and research, and is driven by appropriate economic policies, financial incentives and investments in infrastructure. Now is an opportune moment for Africa's governments to develop country-level policies and financing plans that will open the door to more effective implementation of the targets committed to in the Malabo Declaration and enable smallholder farmers to become the drivers of agricultural transformation. In addition to this, national plans can offer a conduit for public accountability and constructive partnerships with a variety of stakeholders while providing transparent benchmarks.

### THE WEST AFRICAN SCIENCE SERVICE CENTER ON CLIMATE CHANGE AND ADAPTED LAND USE (WASCAL)

WASCAL is a research programme designed to enhance the resilience of agricultural systems to climate change. It aims to identify resilient and adaptive land use systems and develop strategies to conserve or restore ecosystems while preserving the natural resource base. It does so by strengthening the research infrastructure and capacity in West Africa related to climate change and by pooling the expertise of ten West African countries and Germany. The Competence Center, a newly established institute in West Africa, carries out research and provides science-based advice to policymakers and stakeholders on climate change impacts, mitigation, and adaptation measures. The Graduate Studies Program, involving the creation of ten graduate schools in West Africa, contributes to the education of the next generation of African scientists and policy makers in the field of climate change and land management.

### GLOBAL CHANGE SYSTEM ANALYSIS, RESEARCH & TRAINING (START)

START promotes research-driven capacity building to advance knowledge on global environmental change across 26 countries in Africa through research grants and fellowships, knowledge assessments, curricula development, advanced training institutes, multi-stakeholder dialogues, and place-based strategic planning. Through its capacity building activities, START:

- creates opportunities for research and training for scientists, and development professionals,
- brings scientists and policymakers together to enhance understanding of climate change risks,
- promotes collaborative regional research in Africa, Asia, and the Pacific,
- fosters regional data and information platforms for informing policy, and
- mobilises resources to support capacity building.

### CLIMATE RESILIENT GREEN ECONOMY (CRGE), ETHIOPIA

Ethiopia's CRGE is an initiative that combines aspirations of developing a green economy and climate resilience and offers a good example of what be accomplished with political leadership and vision. The CRGE was developed to insulate the country from the impacts of climate change by identifying environmentally sustainable economic opportunities that could accelerate Ethiopia's development and attain middle-income status by 2025. The CRGE is based on four pillars: agriculture, forestry, power and transport, and industrial sectors and infrastructure. Under the agriculture pillar, crop and livestock production practices are due to be improved to increase crop yields, achieve food security and improve the incomes of farmers, while reducing GHG emissions. The green growth pathway envisions limiting national GHG emissions to 150 million tonnes of CO<sub>2e</sub> (MtCO<sub>2e</sub>) instead of 400 MtCO<sub>2e</sub> in 2030 under a business as usual scenario. The CRGE strategy adopts a sectoral approach across six government ministries with more than 60 initiatives, requiring an estimated US\$ 150 billion to deliver on these goals over 20 years.

## TECHNOLOGY & INNOVATION

Successful agricultural development rests on continued technological innovation. Technologies that enhance farmers' resilience and adaptive capacity include, for example, the dissemination of weather data through mobile phones and the development of drought-tolerant crops. Today 75% of Africans own a mobile phone, making it increasingly easy to reach those located in remote rural areas with timely weather forecasts. Information shared via SMS allows farmers to plan ahead and make better use of their resources, but only if the supporting infrastructure exists. Under-resourced national meteorological services must be equipped to supply weather information across larger areas.

### HIGH-IRON BEANS AND ORANGE MAIZE, ZAMBIA, HARVESTPLUS

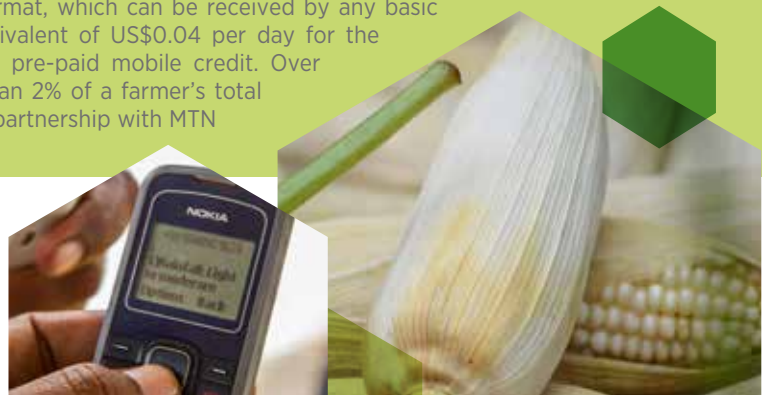
The high-iron bean varieties promoted by HarvestPlus in Africa are tolerant to drought and more than a million farming households have already adopted them. These heat-tolerant beans may be able to handle a worst-case scenario with a global average temperature rise of 4°C. Combining high-nutrient value with "heat-beating" quality, iron beans allow farmers to simultaneously improve nutrition and expand production in the face of climate change. In 2015, the vitamin A-rich orange maize survived the high heat and poor rains in Zambia and today, the Government supports a campaign to replace white maize with the drought- and heat- tolerant orange maize. It is expected that at least 500,000 farming households in the country will be growing this crop by 2020.

### WATER EFFICIENT MAIZE FOR AFRICA (WEMA), AFRICAN AGRICULTURAL TECHNOLOGY FOUNDATION (AATF)

WEMA was initiated in 2008 as a public-private partnership between the AATF, the International Wheat and Maize Improvement Center (CIMMYT), Monsanto and the national agricultural research organisations in five countries: Kenya, Mozambique, Tanzania, Uganda and South Africa. The project aims to deliver conventionally-bred maize varieties that will increase yields by around 20% to 35% compared to current varieties under moderate drought conditions. An estimated two million tonnes of additional food, benefitting 14 to 21 million people, could be produced. The varieties will be released royalty-free to smallholders through African seed companies and their benefits and safety will be assessed by national authorities according to the regulatory requirements of individual participating countries.

### IGNITIA, WEST AFRICA

Started in 2010, Ignitia is a high-technology company and social enterprise that developed a highly accurate tropical weather forecast model that benefits small-scale farmers in West Africa by sending a daily forecast via SMS, provided in partnership with major telecommunication firms. Each forecast is tailor-made for a specific farmer's location by an automated application that fetches the most common GPS coordinate for each subscriber. Farmers are then sent unique forecasts by SMS in text format, which can be received by any basic mobile phone. The farmers are charged the equivalent of US\$0.04 per day for the service; they can pay in micro-instalments from pre-paid mobile credit. Over an entire season, this typically adds up to less than 2% of a farmer's total expenditure on inputs. The service is delivered in partnership with MTN in Ghana, and other telecommunications partners.



## RISK MITIGATION

Low resilience to stresses and shocks may be indicated by a gradual decline in agricultural productivity but, equally, collapse may come suddenly and without warning. Recovery may be rapid, but more often is difficult and incomplete, thereby slowing countries' overall economic and development efforts. Farmers face a variety of market and production risks that make their incomes unstable and unpredictable from year to year. Index-based insurance programmes for managing farming risk are showing signs of promise. Those linked to local weather patterns provide an effective, market-mediated solution to smooth incomes and promote agricultural development, but also make disaster relief more effective.

### AGRICULTURE AND CLIMATE RISK ENTERPRISE LTD. (ACRE), KENYA AND RWANDA

ACRE protects smallholder maize and bean farmers from financial loss if their crops are damaged by weather. ACRE emerged from a partnership between Syngenta Foundation, UAP Insurance, and Safaricom and bundles insurance with loans for seeds, fertiliser and extension services. ACRE works with local insurers and stakeholders in the agricultural insurance value chain. Eight weather stations broadcast weather updates and measure rainfall amounts. When a station detects rainfall levels that are below or above a particular crop's rainfall needs, a pay-out to the farmer is triggered.<sup>15</sup>

### PRODUCTIVE SAFETY NET PROGRAMME (PSNP), ETHIOPIA

Ethiopia's smallholder farmers are amongst the most vulnerable to the unreliable weather, with droughts that cause widespread food shortages now occurring at least every three years. In response, the Ethiopian government introduced the PSNP in 2005. If a household is otherwise unable to feed themselves all year round, it receives six months of support in the form of cash or food in exchange for six months work on public works projects aimed at improving the local environment, such as rehabilitating land, or constructing terracing. These projects have increased land productivity by 400%.<sup>16</sup> The Household Asset Building Programme (HABP) was also established in 2010 to compliment the PSNP. It facilitates access to credit to help smallholders diversify their income and build up productive assets, such as land quality, livestock holdings, or tools. This helps improve agricultural output and food security. Households engaged in the HABP reduced the period of food shortage by over six weeks and showed better child nutrition.<sup>17</sup>

### THE IMPACT OF CLIMATE INFORMATION IN SENEGAL, CGIAR RESEARCH PROGRAMME ON CLIMATE CHANGE, AGRICULTURE AND FOOD SECURITY (CCAFS)

Senegal's strong dependence on rainfed agriculture makes farmers highly vulnerable to climate change. Using seasonal climate forecasts to inform farmers will help to make better use of rainwater and to facilitate decision-making. Since 2011 CCAFS and the Senegalese National Meteorological Agency have been collaborating to develop climate information (CI) services that benefit smallholder farmers. A pilot project was implemented in Kaffrine and by 2015 the project had scaled-up to the rest of the country through a partnership with the Union des Radios Associatives et Communautaires du Sénégal, an association of 82 community-based radio stations. Four different types of CI form the basis of advice provided to farmers through SMS and radio: seasonal weather forecasts; 10-day weather forecasts, to help identify any dry spells and other anomalies in the distribution of the rainfall; daily forecasts, and instant forecasts for extreme events such as lightning or high winds. In 2015 7.4 million rural people, including 740,000 agricultural households, were reached across Senegal. At national level CI is now considered an agricultural input, just like seeds and fertilisers.





## SUSTAINABLE INTENSIFICATION

Substantial investment in advanced training is crucial for removing some of the barriers to adopting sustainable agricultural intensification practices that can benefit smallholder farmers and help achieve higher food production levels across Africa. Adoption of SI practices in combination has the potential to increase agricultural production while improving soil fertility, reducing GHG emissions and environmental degradation and making smallholders more resilient to climate change or other weather stresses and shocks.

### DRIP IRRIGATION, KENYA

Kenya suffers from unreliable rainfall leading to drought conditions that increases household vulnerability to food insecurity. Until recently, smallholder farmers used hand-watering to cultivate vegetables for their families; this practice is tedious and inefficient especially where water is scarce. To improve productivity, the Kenya Agricultural Research Institute introduced drip irrigation technologies. Bucket drip kits help deliver water to crops effectively with far less effort than hand-watering and for a minimal cost compared to irrigation. The use of the drip kit is spreading rapidly in Kenya and farmers reported profits of US\$80-200 with a single bucket kit, depending on the type of vegetable and between US\$400-600 per season with the larger one-eighth of an acre kit.<sup>18</sup>

### WATER HARVESTING IN THE SAHEL

Climate change is felt acutely in the Sahel, where rainfall is sparse and drought is frequent. When rain falls it is often in intense, quick downpours and it swiftly runs off over the impenetrable soil surface, often taking valuable top-soil with it. An effective way to prevent this is by constructing stone bunds. These slow the runoff and allow water to soak into the soil, saving the organic matter that would have been washed away. Despite an initial high cost of around US\$200 per hectare, this practice has proven popular and helped rehabilitate between 200,000 and 300,000 hectares of land in Burkina Faso, producing an extra 72,000-100,000 tonnes of cereals each year and impacting the food security of about half a million people.<sup>19</sup> A local farmer innovation, known as zai pits, that spread largely by word of mouth, can be filled with compost or manure in which crops are planted.<sup>20</sup> Sorghum yields planted in this way can produce up to 1.2 tonnes per hectare, a 50-100% gain over un-pitted land.<sup>21</sup>

### AGROFORESTRY

*Faidherbia albida* is a nitrogen-fixing Acacia tree that is widespread throughout Africa, growing in a variety of soils and climates. It is able to make large quantities of nitrogen available to nearby crops and increase the store of carbon above ground and in the soil. It sheds its leaves in the wet season and retains them in the dry season, allowing for light to pass through in the wet season while providing residue in the dry season. As a consequence, it is possible to plant and grow maize under the trees. Yields can reach more than three tonnes per hectare without fertilisers, depending on the amount of nitrogen fixed by the trees. The climate change mitigation potential for systems incorporating trees with fertilising properties lies in their ability to sequester between two and four tonnes of carbon per hectare per year, compared with 0.2-0.4 tonnes under conventional conservation farming systems. In Malawi, *Faidherbia* provided 300kg of 'fertiliser' per hectare and boosted unfertilised maize yields from 2.5 to four tonnes per hectare, 200% to 400% more than national averages, when planted every 10 rows.<sup>220</sup>



## FINANCING

Insufficient finance is one of the main constraints to implementing climate change adaptation and mitigation projects in Africa, both at national and local levels. Without significant investment in building their resilience, smallholder farmers and their families will not be able to adapt to climatic changes or undertake any considerable mitigation actions. For Africa to gain significant access and tap into the resources of the Green Climate Fund (GCF), the capacity for programme designs needs to be strengthened.

### **BUILDING RESILIENCE AND ADAPTATION TO CLIMATE EXTREMES AND DISASTERS (BRACED), DECENTRALISING CLIMATE FUNDS, MALI AND SENEGAL**

To improve the integration of disaster risk reduction and climate adaptation methods into development approaches, BRACED seeks to influence policies and practices at the local, national and international level. Decentralising Climate Funds is an ongoing pilot project in Mali and Senegal designed to overcome barriers to engagement and access by devolving Climate Adaption Funds (CAF) worth US\$730,000 each to six local governments. Committees that include vulnerable groups such as women and young people are involved in the planning and decision-making process, with the aim of building resilience for 750,000 people by 2017. This will allow those most affected by climate change, and therefore best able to identify strategies to build resilience, to decide how the CAFs are allocated.<sup>23,24</sup>

### **THE CLIMATE ADAPTATION FUND PILOT PROGRAMME, ISIOLO COUNTY, KENYA**

In 2012, the government of Kenya launched a new fund to help communities in the north of the country adapt to climate change. In its first year the Climate Adaptation Fund disbursed US\$780,000 in Isiolo County. Livelihood and local resilience assessments identified the drivers that improved or undermined the ability of different groups to manage challenges such as climate variability, changing market conditions, disease or insecurity. Local communities also helped to identify solutions that would strengthen their adaptive capacities. The findings were used to prioritise investments to promote climate resilient growth and adaptive livelihoods. Climate information was also disseminated through a series of seasonal forecast workshops hosted by the Kenyan Meteorological Department and a community radio station, which broadcast seasonal climate information county-wide in local languages.<sup>25</sup>

### **ADAPTATION FOR SMALLHOLDER AGRICULTURE PROGRAMME (ASAP), IFAD**

One of the largest adaptation programmes dedicated to improving smallholder farmers' resilience to climate change is the International Fund for Agricultural Development (IFAD) Adaptation for Smallholder Agriculture Programme. Since 2012, more than US\$300 million have been channelled to at least eight million smallholder farmers across 30 developing countries. ASAP is scaling-up successful multiple-benefit approaches to increase agricultural output while simultaneously reducing vulnerability to climate-related risks and diversifying livelihoods. ASAP-supported initiatives such as mixed crop and livestock systems, crop rotation and a combination of agroforestry and communal ponds, can improve soil quality, increase the availability of water during dry periods, and provide additional income.

These success stories show how barriers to implementing CSA practices and programmes can be overcome. To achieve this at larger scale and with a more significant impact at continental level, African governments must use their NAIPs under the Malabo Declaration to facilitate training for farmers on sustainable agriculture techniques, improve the capacity of national and regional research institutions, and ensure better and easier access to climate finance that will benefit smallholder farmers.

## CONCLUSION & RECOMMENDATIONS

With a renewed focus on agriculture the Malabo Declaration will help drive an agricultural transformation across Africa that will improve the livelihoods of millions of smallholder farmers. However, African governments need to ensure that country investment plans better reflect the challenges smallholder farmers across the continent face as a result of climate change and extreme weather events. This will require mainstreaming climate change adaptation and resilience building into programmes and into National Agricultural Investment Plans.

### THE MEMBERS OF THE MONTPELLIER PANEL THEREFORE RECOMMEND:

1

#### RECOMMENDATION #1:

To support the Malabo Declaration by building comprehensive regional and national information on climate-related stresses and shocks and their impacts on food and nutrition security.

2

#### RECOMMENDATION #2:

Climate-smart agriculture programmes need to be mainstreamed into the next generation of country investment plans (NAIPs) to ensure a stronger focus on climate change and extreme weather events.

3

#### RECOMMENDATION #3:

Through the African Union, NEPAD, CAADP and regional associations of National Agricultural Research Systems, African governments need to be supported to develop country investment plans that reflect a stronger, collective voice for Africa in international climate policy processes.

4

#### RECOMMENDATION #4:

African governments require easier access to climate funds through the Green Climate Fund and other innovative finance mechanisms that will help countries implement climate-smart agriculture programmes.

5

#### RECOMMENDATION #5:

Governments need to improve the capacity for enabling science to guide climate change adaptation and mitigation in agriculture.

6

#### RECOMMENDATION #6:

Better training for farmers on sustainable farming techniques, through improved extension services, farmer field schools and utilisation of digital technologies.



## THE MONTPELLIER PANEL

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