



Oxford Policy Management

Climate finance and water security

Ethiopia case study

Matthew Savage, Ana Mujica, Federica Chiappe and Ian Ross

26 June 2015

Acknowledgements

This study was commissioned by WaterAid. We would like to thank Mr Gossa Wolde, Mr Abera Endeshaw and colleagues at WaterAid Ethiopia; Mr Yibeltal Fentie, and all key informants for their support and contributions to this study.

The views expressed do not necessarily reflect WaterAid's official policies. The authors are solely responsible for the content of this document.

For more information about OPM, please visit www.opml.co.uk

This assessment is being carried out by Oxford Policy Management. The team leader is Federica Chiappe and the project manager is Ana Mujica. The remaining team members are Ian Ross and Matthew Savage. For further information, please contact Ana Mujica at ana.mujica@opml.co.uk.

The contact point for the client is Louise Whiting at louisewhiting@wateraid.org. The OPM project number is 8416.

Oxford Policy Management Limited

6 St Aldates Courtyard
38 St Aldates
Oxford OX1 1BN
United Kingdom

Tel +44 (0) 1865 207 300
Fax +44 (0) 1865 207 301
Email admin@opml.co.uk
Website www.opml.co.uk

Registered in England: 3122495

Table of contents

Acknowledgements	i
List of tables and figures	iii
List of abbreviations	iv
1 Introduction	1
2 Water security and climate change	2
2.1 Water security	2
2.2 Observed and projected climate trends	3
2.3 The water security and climate change nexus	7
3 Climate finance	8
3.1 Climate policy architecture	8
3.1.1 National development plans	8
3.1.2 Environment and climate policy	8
3.1.3 Climate Resilient Green Economy	8
3.2 Climate finance architecture	9
3.2.1 Climate Resilient Green Economy Facility	9
3.3 Climate finance to date	10
4 Climate finance for water security	13
4.1 WASH and water-related activities	14
4.1.1 Project for Rural Water Supply in Tigray Region (A)	15
4.1.2 Adapting to Climate Change by Improving Water Resources Management (B)	16
4.1.3 Coping with Drought and Climate Change (B)	16
4.2 Future scope for water projects	18
5 Conclusions and policy recommendations	19
5.1 Conclusions	19
5.2 Recommendations	19
References	21
Annex A List of CFU projects and categorisation	23
Annex B List of stakeholders consulted	24

List of tables and figures

Table 1	Agro-climatic zones of Ethiopia.....	4
Table 2	Summary of impact / vulnerability assessment for selected sectors	6
Table 3	Distribution of climate finance by funder	12
Table 4	Distribution of climate finance by project categories.....	14
Table 5	Proposed adaptation options to cope with climate change impacts.....	15
Figure 1	Trends in water coverage by area (1990, 2000 and 2012)	2
Figure 2	Trends in sanitation coverage by area (1990, 2000 and 2012)	3
Figure 3	Historic and projected temperature	5
Figure 4	Historic and projected rainfall.....	5
Figure 5	Drought probability in Ethiopia	6
Figure 6	Distribution of climate finance by focus	11
Figure 7	Distribution of climate finance by type of instrument	12

List of abbreviations

ADB	Asian Development Bank
CFU	Climate Funds Update
CRGE	Climate Resilient Green Economy
EE	Executing Entity
EEA	Ethiopian Economic Association
ENSO	El Niño Southern Oscillation
EPRI	Economic Policy Research Institute
FAO	Food and Agriculture Organisation of the United Nations
FCPF-RF	Forest Carbon Partnership Facility – Readiness Fund
FSF	Fast Start Finance
GCCA	Global Climate Change Alliance
GDP	Gross Domestic Product
GEF	Global Environment Facility
GGGI	Global Green Growth Institute
GHG	Greenhouse Gas
GTP	Growth and Transformation Plan
IE	Implementing Entity
IKI	International Climate Initiative
ITCZ	Inter-Tropical Convergence Zone
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
JMP	WHO / UNICEF Joint Monitoring Programme
LDCF	Least Developed Country Fund
MDG	Millennium Development Goal
MoEF	Ministry of Environment and Forests
MoFED	Ministry of Finance and Economic Development
MoWE	Ministry of Water and Energy
NAPA	National Adaptation Programme of Action

NDA	National Designated Authority
NMA	National Meteorological Agency
OECD CRS	Organisation for Economic Development and Cooperation – Creditor Reporting System
OECD DAC	Organisation for Economic Development and Cooperation – Development Assistance Committee
ODA	Official Development Assistance
ODI	Overseas Development Institute
OPM	Oxford Policy Management
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PSNP	Productive Safety Net Programme
REDD+	Reducing Emissions from Deforestation and Degradation
SCCF	Special Climate Change Fund
SCIP	Strategic Climate Institutions Programme
SDPRP	Sustainable Development and Poverty Reduction Programme
SLMP	Sustainable Land Management Programme
SRAP	Sector Reduction Action Plan
SREP	Scaling-Up Renewable Energy Program
SRM	Sector Reduction Mechanism
TRAP	Thematic Reduction Action Plan
UAP	Universal Access Plan
UK	United Kingdom
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children’s Fund
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation
US	United States
WASH	Water Supply, Sanitation and Hygiene
WHO	World Health Organisation

1 Introduction

This Ethiopia case study has been developed for the project '**Research on climate finance and water security**', funded by Water Aid. The project aims to identify the type and scale of national and sub-national programmes, and projects that have been funded by climate finance and how they relate to local water security.

The methodology and definitions used are fully explained in the Inception Report and so are not repeated in this assessment, but are referenced where appropriate. This report is based on:

1. A review of secondary literature;
2. Key informant interviews with water and climate change stakeholders in Ethiopia; and
3. Project-level data from the Climate Finance Update (CFU) and the OECD Creditor Reporting System (CRS).

This case study is structured as follows:

- [Section 2](#) reviews the evidence base on water security and climate change for Ethiopia, and explores the nexus between the two thematic areas;
- [Section 3](#) reviews the policy and institutional frameworks for climate finance in Ethiopia, and sets out an analysis of the reported climate finance funds flowing from international donors (as reported in the Climate Finance Update database);
- [Section 4](#) sets out an analysis of the identified climate finance flows categorised in terms of their relevance to a hierarchy of water security issues; and
- [Section 5](#) presents the conclusions and recommendations.

The [Annexes](#) contain the complete list of climate finance projects for Ethiopia, together with a list of the stakeholders interviewed. A total of 17 key stakeholders, including donors, government parties and national climate change agencies, were interviewed. Summary notes for these KIIs can also be found in the Annexes. Fieldwork was undertaken by Federica Chiappe of OPM and Yibeltal Fentie in January 2015.

2 Water security and climate change

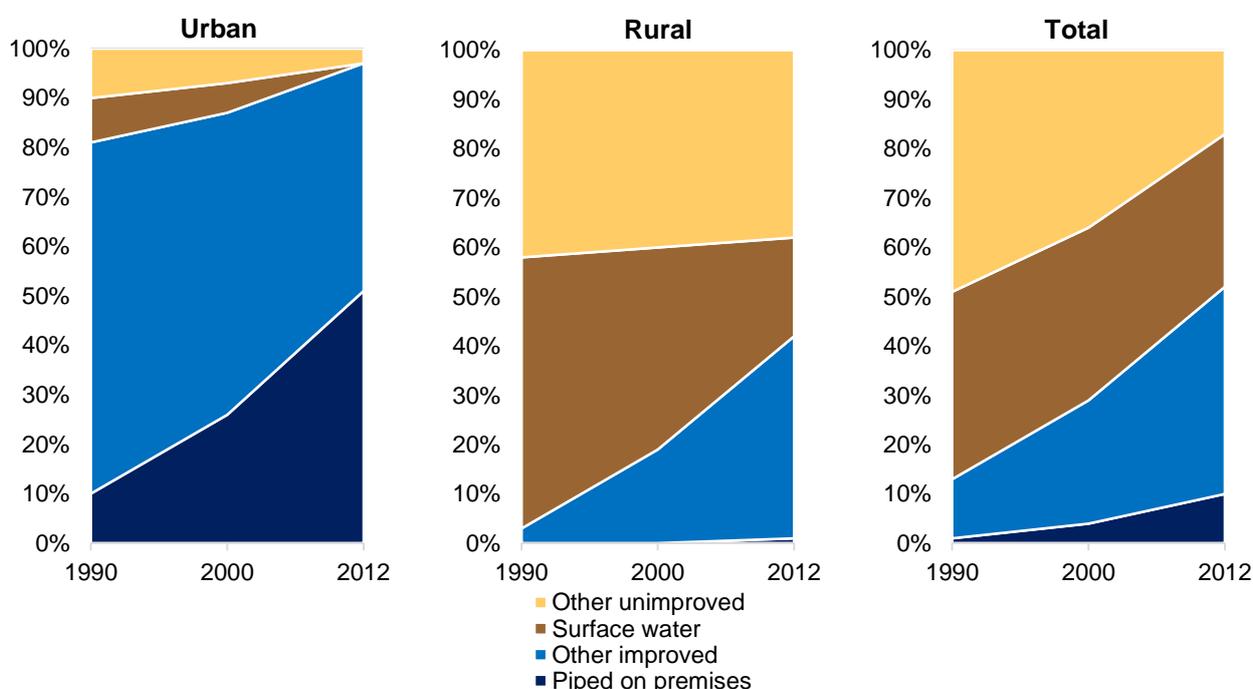
2.1 Water security

Although Ethiopia has abundant water resources, with a mean total surface water flow of 122 billion m³ per year, they are unevenly distributed across the country. Indeed, while around 85% of surface is found in the Western basins, only 40% of the population lives in these areas (Calow, Ludi & Tucker, 2013). Ethiopia also experiences frequent droughts and high rainfall variability, which have a direct effect on water availability at different points in time.

Ethiopia has 12 major river basins (the majority of which are transboundary) that form four key drainage systems: (1) the Nile Basin, covering 33% of the country; (2) the Rift Valley, which covers 28%; (3) the Shebelle-Juba basin, also covering 33%; and (4) the North-East Coast, which covers the remaining 6% (Frenken, 2005). Groundwater more widely available and provides around 90% of the drinking water supply. However, in some areas groundwater may only be found at great depths (e.g. Somali Region) or may be chemically polluted (Calow et al, 2013).

Ethiopia relies heavily on rain fed agriculture, but still 94% of total water withdrawal is used for irrigation, with the remaining 6% used for domestic purposes (Frenken, 2005). Joint Monitoring Programme (JMP) indicators suggests that improved water coverage has increased substantially in the past decades, especially in urban areas. While in 1990 only 10% of the urban population had access to piped water on premises, 51% had access in 2012. Overall, around 97% of the urban population had access to an improved water source by 2012. In contrast, despite significant progress since 1990, only 42% of the rural population had access to an improved water source by 2012, with 31% of rural households relying on surface water for drinking (Figure 1). Given the frequency of drought in the country, a high dependency on surface water for drinking poses serious risks to the livelihoods of the poor – and even more so in the context of rainfall uncertainty and climate change.

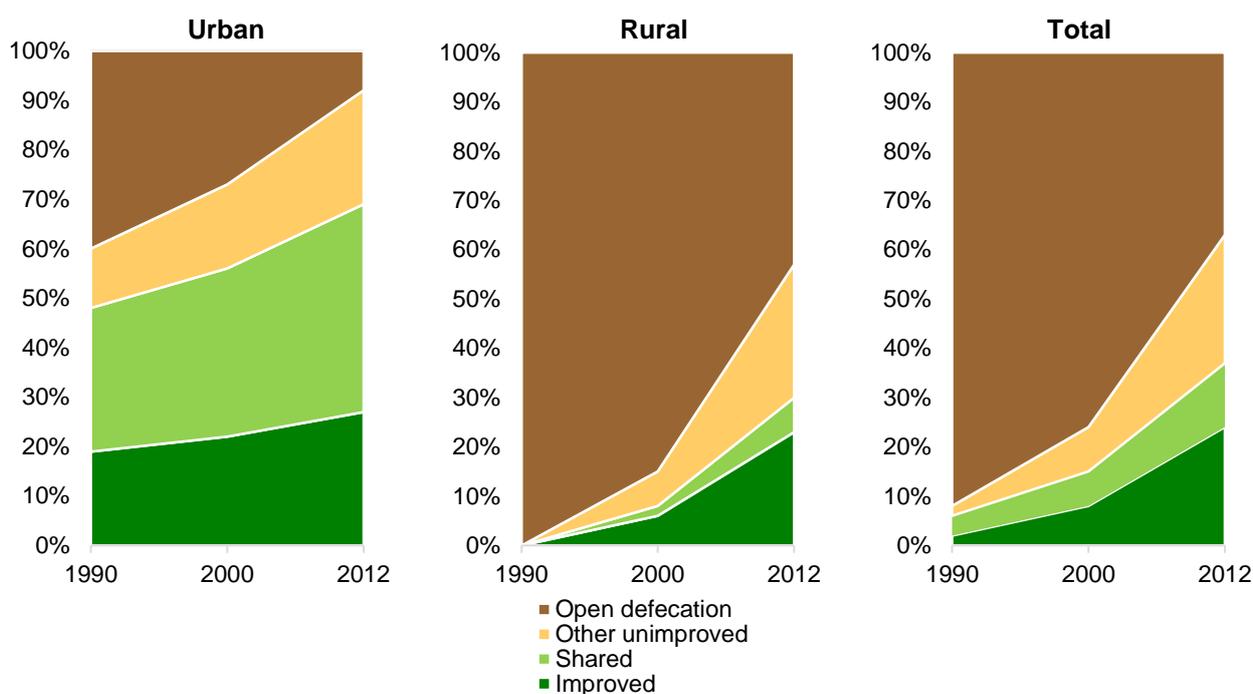
Figure 1 Trends in water coverage by area (1990, 2000 and 2012)



Source: WHO / UNICEF JMP (2015).

Figure 2 shows the progress in sanitation coverage between 1990 and 2012. Although coverage of improved and shared sanitation has increased in rural areas from 0% to 30%, 43% of the population still practiced open defecation in 2012. On the contrary, open defecation was common in only 8% of urban households in 2012, with the majority using either shared (42%) or improved (27%) facilities. Overall, national coverage follows rural trends, with a high proportion of the population still practising open defecation or relying on unimproved facilities. The high level of open defecation in rural areas is of great concern in the context of a high dependence on surface water for drinking, as it increases the likelihood of water pollution and the transmission of water-borne diseases.

Figure 2 Trends in sanitation coverage by area (1990, 2000 and 2012)



Source: WHO / UNICEF JMP (2015).

Ethiopia's investments in mitigating the impacts of hydrological variability as well as developing its water resources have been limited. The government has recently launched the Growth and Transformation Plan (GTP), through which significant investments in hydropower, irrigation and flood control have been planned. In particular, the GTP recognises the importance of guaranteeing access to water, as well as promoting watershed management and conservation to cope with climate change. The Ministry of Water and Energy (MoWE) also launched an updated Universal Access Plan (UAP) in 2010 to achieve the MDGs related to water and sanitation, while Ethiopia's National Adaptation Programme of Action (NAPA) highlights the role water development and management in building future climate resilience (Calow et al, 2013).

2.2 Observed and projected climate trends

Observed climate trends

Ethiopia encompasses five agro-climatic zones that have different topographic and climatic conditions, as shown in Table 1. Temperature ranges from about 10°C in the highlands in the Northwest, Central and Southeast to 35°C in the North-eastern lowlands. Rainfall ranges from 2,000mm over some areas in the Southwest to less than 250mm over the Afar and Ogaden lowlands (EEA & EPRI, 2010).

Table 1 Agro-climatic zones of Ethiopia

Zone	Altitude	Mean annual temperature	Mean annual rainfall
Berha	< 500m	> 25°C	< 600mm
Kolla	500 to 1,500m	20 to 28°C	600 to 900mm
Weyna Dega	1,500 to 2,300m	16 to 20°C	> 900mm
Dega	2,300 to 3,200m	6 to 16°C	> 900mm
Wurch	> 3,200m	< 6°C	> 1,400mm

Source: Calow et al (2013).

Nonetheless, the country generally shares three common seasons, which are largely determined by the Inter-Tropical Convergence Zone (ITCZ):

- *Kiremt*, the main rainy season (June – September);
- *Bega*, the dry season (October - January); and
- *Belg*, the short rainy season (February – May)

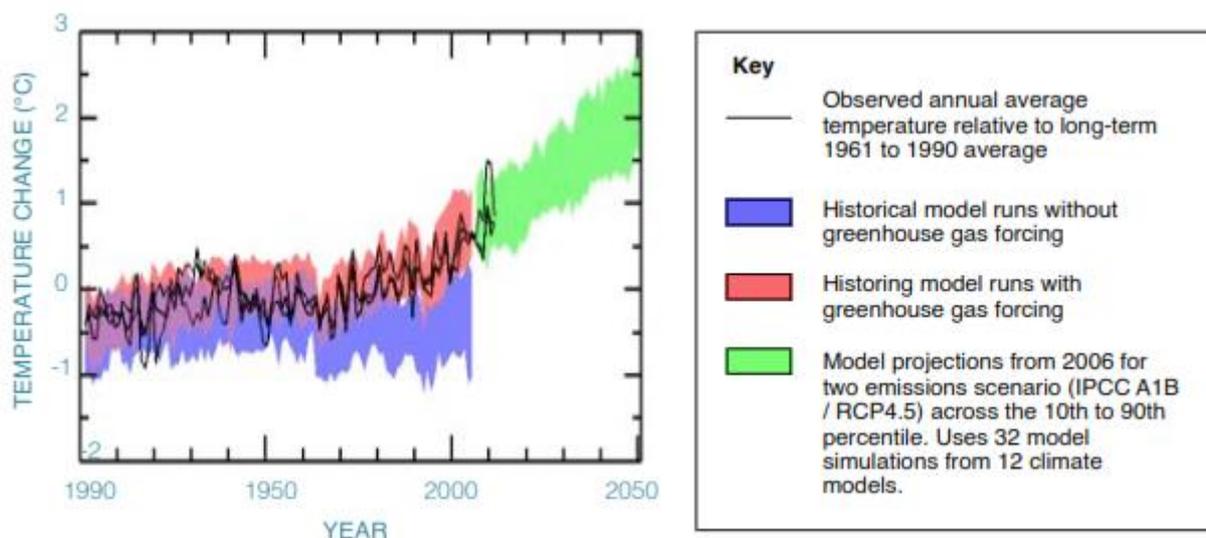
The intensity of rainfall is also determined by the El Niño Southern Oscillation (ENSO), which tends to reduce rainfall in the main rainy season and increase rainfall in the *Belg* season (Calow et al, 2013).

Estimations suggest that between 1960 and 2006 mean annual temperature increased by 1.3°C, with an increase in the number of hot days and nights by 20% and 38% respectively (McSweeney, New & Lizcano, 2010). Additional estimations also show that in the past 60 years, the country has experienced several dry and wet years, as well as an increase in the number of warm and cool years. Rainfall trends have remained relatively constant across the whole country, although there is some indication that annual rainfall is decreasing in the South (EEA & EPRI, 2010; McSweeney et al, 2010).

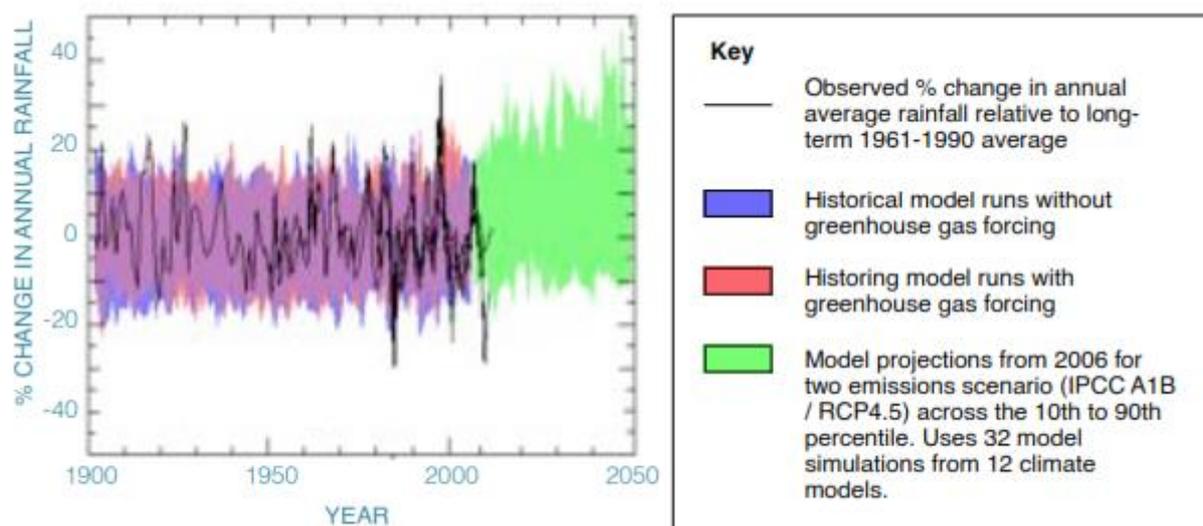
Projected climate trends

Mean annual temperature is expected to increase by 1.1 - 3.1°C by the 2060s and 1.5 - 5.1°C by the 2090s. Estimations also point to a further increase in the number of hot days and nights, as well as an increase in the number of cold days and nights. Rainfall projections suggest an increase in annual rainfall, especially during 'heavy' rain events (McSweeney et al, 2010). Further estimations from the World Bank (2010) indicate that in a 'dry scenario', mean annual rainfall will decrease by 10-25% in the Central highlands, by 0-10% in the South, and by more than 25% in the Northern areas of the country. On the contrary, in a 'wet scenario' mean annual rainfall would increase by 10-25% in the South and Central highlands and by more than 25% in the rest of the country.

The National Meteorological Agency (NMA) had previously reported a central projection of approximately 1°C increase by 2020, 2°C by 2050 and 3°C by 2080 relative to the baseline of 1961-90. However, there is a large range around these projections, as shown in Figure 3. Previous NMA attempts to model future changes in rainfall also reported a large range (between -20% and +35%) by 2050 relative to the baseline (Figure 4). This is similar to current levels of variability which make rainfall difficult to project.

Figure 3 Historic and projected temperature

SOURCE : IPCC Archive, WCRP, CMIP3 and CMIP5, Stone et al (2013)

Figure 4 Historic and projected rainfall

SOURCE : IPCC Archive, WCRP, CMIP3 and CMIP5, Stone et al (2013)

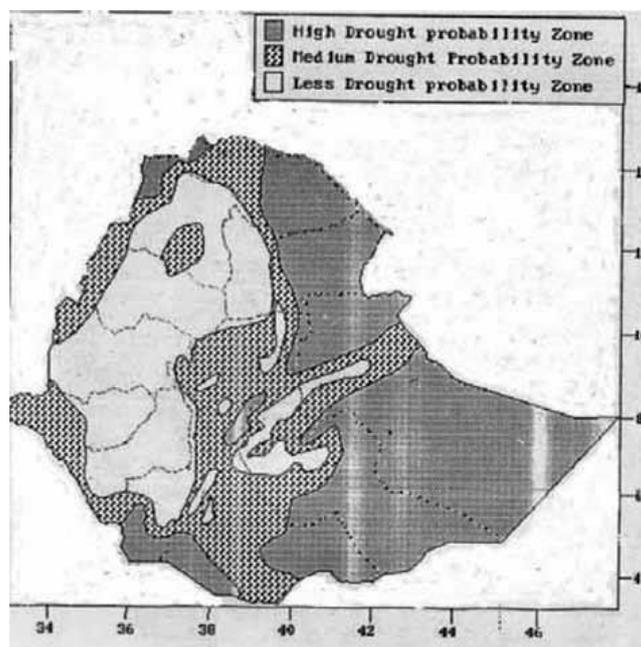
The overwhelming message is one of uncertainty, with a large envelope of potential change. Furthermore, Calow et al (2013) note that climate forecasts in Ethiopia are generally based on inaccurate and unreliable information as there are several gaps in the observations recorded. The high variability in climate and topographic conditions also limit the accuracy of climate change projections.

Climate change impacts

Ethiopia is particularly vulnerable to climate change due to its location, topography and low adaptive capacity. Changes in temperature and rainfall patterns and variability are likely to increase the frequency of severe droughts and floods, which will subsequently have a negative impact on human and livestock health, food security, and land degradation. Figure 5 shows the estimated probabilities of drought across the country. As observed, many of the lowland areas in eastern Ethiopia have a

high drought probability, while the West and central North highlands have a low drought probability (EEA & EPRI, 2010).

Figure 5 Drought probability in Ethiopia



Source: NMA (2007).

The National Adaptation Programme of Action (NMA, 2007) further identified the most vulnerable sectors to climate change – both small-holder rain fed farmers and pastoralists were found to be the most vulnerable populations, while the arid, semi-arid and dry sub-humid areas of the country were identified as the most likely to be affected by drought. Table 2 summarises the different impacts and vulnerable sectors identified by the NAPA.

Table 2 Summary of impact / vulnerability assessment for selected sectors

Sector	Potential impacts
Agriculture	<ul style="list-style-type: none"> Shortening of the maturity period and decrease in the crop yield.
Grasslands and livestock	<ul style="list-style-type: none"> Change in livestock feed availability. Effects of climate change on animal health, growth and reproduction. Impacts on forage crops quality and quantity. Change in the distribution of diseases. Change in the decomposition rate. Change in income and prices. Contracting pastoral zones in many parts of the country.
Forests	<ul style="list-style-type: none"> Expansion of tropical dry forests and the disappearance of lower montane wet forests. Expansion of desertification.
Water resources	<ul style="list-style-type: none"> Decrease in river run-off. Decrease in energy production. Flood and drought impacts.
Human health	<ul style="list-style-type: none"> Expansion of malaria to highland areas.

Wildlife	<ul style="list-style-type: none"> ▪ Shift in physiological responses of individual organisms. ▪ Shift in species distribution from one to the next. ▪ Shift in biomes over decades / centuries. ▪ Shifts in genetic makeup of the population. ▪ Loss of key wetland stopover and breeding sites for threatened bird species and in general endemic and threatened species of flora and fauna are frontline victims.
-----------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Source: NMA (2007).

To evaluate the effects of climate change on water security, the World Bank (2010) used a water planning model to assess the potential interactions in the use of water across different sectors (i.e. municipal and industrial, irrigation, and hydropower). Results indicate that, under a 'dry scenario' with priority allocated to agriculture, there is a significant loss of hydropower capacity. On the contrary, if priority is given to hydropower, up to 1 billion m³ of water may be taken away from agriculture, causing a 30-40% drop in crop yield.

2.3 The water security and climate change nexus

Projections from the IPCC 5th Assessment indicate that climate change (both natural and anthropogenic) will likely amplify water stress in Africa. Droughts are expected to intensify in Southern and Eastern Africa due to reduced rainfall or increased evapo-transpiration. Freshwater ecosystems are particularly at risk from changes in land use, over-abstraction of groundwater, diversions of rivers and lakes, and increased pollution and sedimentation. Groundwater resources may also be affected, especially in areas receiving less than 500mm of annual rainfall, as is the case of the Horn of Africa (Niang et al, 2014).

The World Bank has also identified four key mechanisms through which climate change may have an effect on both economic growth and development: (1) productivity changes in dry-land agriculture; (2) water availability; (3) road infrastructure maintenance and upkeep; and (4) extreme events (World Bank, 2010). Drought frequently occurs and is considered an extreme climate event. Drought-related disasters have occurred several times over the past twenty years across many parts of the country, and have been particularly prevalent across the central and northern highlands. Furthermore, more than 70% of the country is dryland, with annual rainfall in these areas being low and seasonal, and having a high inter-annual variability.

The overall impacts of climate change on groundwater availability and quality are uncertain, and much depends on the timing, frequency, and distribution of rainfall (Calow et al, 2013; World Bank, 2010). Some of the expected impacts of climate change on the sustainability of water services are the following (Ibid, 2013):

1. Increased vulnerability of unimproved and shallow water sources;
2. Increased risk of saltwater intrusion and salinization of groundwater in coastal areas; and
3. Increased water stress due to the over-abstraction of groundwater resources.

3 Climate finance

3.1 Climate policy architecture

3.1.1 National development plans

Ethiopia has set out its development objectives in a series of national development plans, and these documents shape programming at both federal and regional level. Development plans have traditionally focussed on poverty eradication and economic growth, starting with the Sustainable Development and Poverty Reduction Programme (SDPRP) from 2002 to 2005, and the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) from 2005 to 2010. More recently, the Government is implementing development through the Growth and Transformation Plan (GTP). The GTP aims to support Ethiopia in achieving middle-income country status by 2025 and the MDGs by 2015. The GTP differs from previous plans by including climate change as a cross-cutting issue within the strategic priority of 'environment and climate change' and seeks to create a 'climate resilient green economy' (CRGE). The CRGE approach is presented as a means of reducing development losses caused by climate change impacts, securing economic interests (particularly energy security) and moving towards sustainable production models. CRGE is also being integrated into the next development plan – GTP II.

3.1.2 Environment and climate policy

The government ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. The National Environmental Policy (2002) provides the overarching policy framework for climate change considerations, and includes provisions on monitoring climate impacts, controlling GHG emissions and promoting renewable energy. The Environmental Protection Agency was responsible for the institutional response before this mandate was taken up by the Ministry of Environment and Forests (MoEF). Work began on specific climate change strategies and programmes in 2007, with the development of the National Adaptation Programme of Action (NAPA). Further programmes include Nationally Appropriate Mitigation Actions (2010), the Ethiopian Program of Adaptation to Climate Change (2010), the CRGE Vision and Strategy (2011), and the New Energy Proclamation (2013). Broadly, these policy documents together articulate the country's objectives around climate resilience and a green economy.

3.1.3 Climate Resilient Green Economy

Ethiopia is one of the few countries that has brought together climate resilience and green economy objectives under a single policy framework. Policy frameworks continue to evolve around the CRGE process, but the indication is that climate change will be addressed as part of wider economic development planning, rather than as an independent environmental issue. The government is currently drawing upon existing laws and policies to inform its implementation.

Institutional arrangements for coordinating and implementing public policy responses for CRGE are being developed and have been designed to achieve both federal and regional buy-in. The responsibility of coordinating CRGE planning lies with the MoEF, which is complemented by financial management on behalf of the Ministry of Finance and Economic Development (MoFED). The CRGE Inter-Ministerial Committee, under the Council of Ministers, provides oversight of the CRGE process. This Committee is the highest-level body within the CRGE institutional arrangements – it is responsible for providing overall direction to the CRGE process and for approving financial decisions of the CRGE Facility. The Committee comprises of State Ministers and senior officials from participating institutions. The roles for line ministries and regional structures are still being defined,

but are likely to become implementing entities responsible for sector specific investment plans. The government is seeking to embed institutional responsibility within existing federal and regional institutions, with a view to building capacity. The government is also developing additional policy documents, like the Sector Reduction Mechanism (SRM) to guide the integration and implementation of CRGE investments within federal and regional plans. For example, the Government is integrating CRGE initiatives into flagship development programmes like the Sustainable Land Management Programme (SLMP) II and the Productive Safety Net Programme (PSNP).

3.2 Climate finance architecture

3.2.1 Climate Resilient Green Economy Facility

The Government of Ethiopia has established a funding mechanism to mobilise and disburse finance for the CRGE strategy. This structure is known as the CRGE Facility (RoE, 2013). The government aims to mobilise an estimated US \$200 billion from national and international public and private sources to implement the CRGE over the next 20 years.

Management arrangements for the CRGE Facility have been designed to support strong country ownership. The Facility is guided by the strategic directions set by the Environmental Council and the CRGE Ministerial Steering Committee. The Ministry of Finance and Economic Development is responsible for the overall management of the Facility, with the Ethiopian Environmental Protection Authority responsible for technical coordination.

The intended approach of the Facility is one of flexibility, able to access and pool both national and international funds, including public, private and carbon finance. The Facility will be able to deploy a range of instruments (grants, loans, guarantees, results based payments, etc.) depending on the profile of the investment. The Facility has a focus on investments in renewable energy, and mitigation and adaptation investments in the agriculture and forest sectors, through which water security concerns are mainly addressed (e.g. water for irrigation) (R. Takele and G. Mamo, personal communication, 22 January 2015).

The Facility is broadly expected to support two kinds of work:

1. Strategic work to support line ministries and regional governments in the implementation of programmes and projects. Potentially, 75% of the Facility's funds will be disbursed in this way as pooled and non-earmarked funding, and donors will contribute to a fund to support government priorities; and
2. Demand-driven activities identified by non-state actors, such as NGOs and researchers, in collaboration with federal and regional entities. This funding could potentially be earmarked by donors.

The Government of Ethiopia is currently designing institutional arrangements for accessing finance. Participants will be divided into two groups. The first group, known as Implementing Entities (IEs), include federal ministries or regional governments. They will have CRGE units embedded within their structures and will be responsible for developing and implementing CRGE Sector Reduction Action Plans (SRAPs). The MoEF will prepare Thematic Reduction Action Plans (TRAPs) for cross-cutting investments. The second group, known as Executing Entities (EE), includes private sector and non-state institutions (e.g. academic, financial, community). These institutions are responsible for implementing concrete interventions, in collaboration with the implementing entity (RoE, 2013).

There is ongoing work to get the CRGE Facility accredited by the Adaptation Fund under the Kyoto Protocol, with the aim of getting direct access to the Green Climate Fund.

The CRGE strategy is being supported in parallel by a number of multilateral and bilateral funds (e.g. Strategic Climate Institutions Programme – SCIP – and Scaling-Up Renewable Energy Program – SREP), trust funds, such as the Bio-Carbon Fund and SLMP II, and credit lines. Many of these have been designed to support private sector development through the use of risk sharing and concessional loans (e.g. Climate Innovation Centre, Rural Electrification Fund). Current activities are being carried out under a temporary fast track scheme, and around US \$45 million of funding have already been secured (D. Yeo and W. Batty, personal communications, January 2015)

3.3 Climate finance to date

Official Development Assistance

Ethiopia receives considerable Official Development Assistance (ODA) and other financial flows, estimated at over US \$3.5 billion in 2011 (Eshetu et al, 2014). MoFED's aid management system holds data on donor funding for ongoing projects, pipeline projects and pledges made to various sectors in Ethiopia.

Within all ODA, the value of ongoing projects related to climate change is US \$393 million, with US \$19 million in the pipeline (i.e. agreed but not commenced) and an additional US \$20 million pledged in forthcoming projects (Ibid, 2014). Donor funding represents a significant amount of funding for climate-related activities, and could go some way to reducing the gap between the expectations of the CRGE strategy's funding ambitions and available financing.

Government budgets

Despite an improved financial management system in the country, with average execution rates of 90%, budget credibility in the area of climate change is currently weak (with execution rates between 25% and 35%) and budgeted amounts having only a partial relationship with actual outturns (Eshetu et al, 2014).

Climate change-relevant spending has also fluctuated considerably between 2008 and 2012, and the estimated average annual percentage share of such expenditure was 15% of total government expenditure, or 1.8% of GDP. Climate change-relevant programmes are generally of medium relevance, and climate change is mostly a secondary objective (Ibid, 2014).

Local action

Financial resources at the local (*woreda*) level come mainly from federal transfers through the regions and there is little or no flexibility to include additional activities beyond the framework plan determined at federal and regional levels. Also, line ministry representation at the sub-national levels is weak, with limited human and financial resources generally available.

CFU project-level data

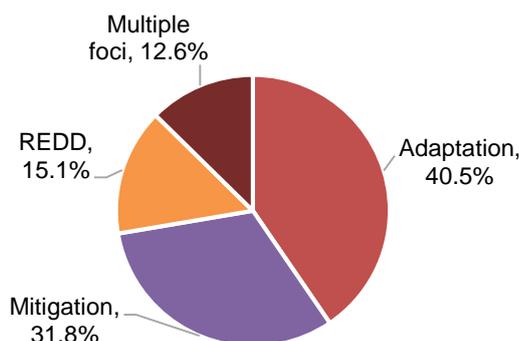
According to the Climate Funds Update database, a total of US \$123 million of climate finance have been approved in Ethiopia since 2003¹. This is based on CFU's definition of 'climate finance' (see Inception Report, Section 2.4 for definitions) and is only representative of multilaterally-governed funds. Some of these funds may have been considered as ODA by Eshetu et al (2014) as (1) there is no clear distinction between ODA and climate finance in national accounts; (2) there is evidence

¹ The CFU database is cumulative since 2003, and tracks all multilateral-governed funds focussed on climate finance. Data also contains information about major bilateral initiatives and some national climate change funds, but coverage is not universal. For more information, please refer to <http://www.climatefundsupdate.org/about/data-figures-notes>.

of rebranding of development projects; and (3) there are no adequate monitoring systems (B. Simane and W. Battye, personal communications, January 2015).

The majority of climate finance to date has been directed towards adaptation activities (41%), followed by mitigation (32%) and reducing emissions from deforestation and degradation (REDD). The remaining 13% of funds have been allocated to multiple foci activities (Figure 6). This distribution seems to be consistent with identified climate change impacts across different sectors (i.e. agriculture, forests, water resources and energy, and wildlife) (see Table 2).

Figure 6 Distribution of climate finance by focus



Source: CFU (2014).

Table 3 shows the distribution of total climate funds by funder. The Scaling-Up Renewable Energy Program (SREP) has approved the largest amount of finance (25%), funding projects for the development of geothermal and wind energy. The SREP is followed by Japan's Fast Start Finance (FSF), which has approved 21% of total funds to the country, and the UK's International Climate Fund (19%). However, there are significant disparities between the funds approved and disbursed, with only 16% of funds or US \$20 million disbursed to date². This difference may be related to data quality issues, e.g. frequency of updates to the CFU database and systematic tracking of projects³, but may also be explained by the lack of reliable monitoring and reporting systems in Ethiopia (B. Simane, personal communication, 20 January 2015). Key stakeholders also mentioned that low disbursements could be related to limited capacity for funds management, and lack of coordination and project prioritisation (W. Battye, personal communication, 8 June 2015).

² The CFU defines approved funds as those that have been "officially approved and earmarked to a specific project or programme". Disbursed amount refer to funds that have been officially spent.

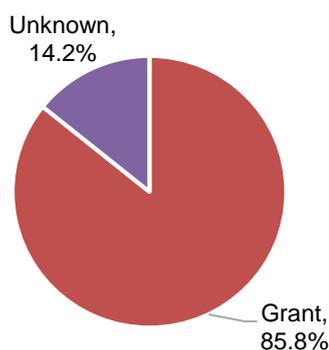
³ Indeed, W. Battye of the GGGI was surprised by this figure and did not agree with it, suggesting that a higher proportion of climate finance has been disbursed to date (8 June 2015).

Table 3 Distribution of climate finance by funder

Funder	% of total funds	Funds approved (US million)	Funds disbursed (US million)	Funds disbursed (% of funds approved)
Forest Carbon Partnership Facility - Readiness Fund (FCPF-RF)	3%	\$3.8	\$0.6	16%
GEF Trust Fund (GEF 5)	3%	\$4.1	\$-	0%
Germany's International Climate Initiative	5%	\$6.6	\$-	0%
Global Climate Change Alliance (GCCA)	11%	\$13.2	\$8.7	66%
Japan's Fast Start Finance	21%	\$25.8	\$-	0%
Least Developed Countries Fund (LDCF)	9%	\$10.4	\$5.5	53%
MDG Achievement Fund	3%	\$4.0	\$4.0	100%
UK's International Climate Fund	19%	\$23.6	\$-	0%
Special Climate Change Fund (SCCF)	1%	\$1.0	\$1.0	100%
Scaling Up Renewable Energy Program (SREP)	25%	\$30.6	\$-	0%

Source: CFU (2014).

Figure 7 shows the distribution of climate finance by type of financial instruments. The majority of funds are planned to be disbursed as grants (86%), with the remaining 14% of funds to be disbursed under unknown arrangements. However, the latter relate to the Strategic Climate Institutions Programme (SCIP), financed by the UK's International Climate Fund, to which all other reported funding is planned to be disbursed as a grant. Hence, it is likely that all climate finance provided to Ethiopia is in the form of grants. Indeed, stakeholders mentioned that most of the funds are currently disbursed as grants, but this is likely to change in the future, especially if more mitigation and carbon sequestration activities are supported (B. Mengesha, personal communication, 20 January 2015).

Figure 7 Distribution of climate finance by type of instrument

Source: CFU (2014).

4 Climate finance for water security

Following the methodology presented in the Inception Report, we have categorised CFU project-level data to estimate the amount of funding directed towards water security or related activities. Using the OECD Creditor Reporting System (CRS) coding, projects have been distributed in the following water security categories:

- **Category A** includes projects that are primarily related to Water Supply, Sanitation and Hygiene (WASH);
- **Category B** includes projects pertaining to ‘natural security resources’ that are inter-related to water security, such as integrated water resources management (IWRM), agricultural water resources, and water-related energy security;
- **Category C** encompasses projects that are indirectly related to water security – mainly those activities that present potential co-benefits or trade-offs from mitigation activities, such as forestry; and
- **Category D** includes climate finance projects that are not related to water security.

For Ethiopia, there are 20 projects in the CFU database. We looked for each of these projects in the OECD Creditor Reporting System from 2007 (the date of approval of the earliest CFU project) until 2013 (the most recent year in OECD CRS) to be able to attach a specific CRS code to each of them and proceed with the categorisation. However, only 11 of these projects were found in the OECD database, so we had to rely on project-specific documentation to make a subjective judgement and allocate them to each category accordingly. The full list of projects, along with the CRS codes and categorisation is reported in Annex A.

Table 4 shows the final distribution of projects by water security categories. Out of 20 projects, only 1 is directly related to WASH (Category A), corresponding to 9% (US \$11 m) of total approved funds. There are 2 projects related to other natural water security resources (Category B), which encompass 2.6% (US \$3.2m) of total approved finance. Likewise, there are 2 projects that present co-benefits or trade-offs related to afforestation and reforestation (Category C): the ‘Forest Preservation Programme’ and ‘Promoting Autonomous Adaptation at the Community Level in Ethiopia’. Overall, the bulk of international climate finance in Ethiopia is allocated to projects that are not related to water security (Category D) – these account for 72% of the total funds approved. The majority of these projects correspond to environmental policy and administrative management, with some activities related to the development of geothermal energy, energy policy and disaster prevention and preparedness.

Although CFU data is likely to be underestimating total climate finance in Ethiopia⁴, the distribution of projects across categories is consistent with findings from the key informant interviews. While some stakeholders suggested that there are currently no projects directed to address water security concerns (G. Wolde, personal communication, 20 January 2015), others suggested that there were some projects dealing with water through agriculture or energy but were not directly associated with the water sector (B. Mengesha and A. Tesema, personal communications, January 2015). This is partly explained by the lack of a national framework for water security. Finally, informants also suggested that there seems to be less interest from donors to invest in the water sector, unless funds

⁴ Table 4 only includes climate finance from the CFU. Arguably, some other activities could also be included (such as those listed in Eshetu et al, 2014), but these are not included in the CFU database so do not fall under the definition of climate finance in our methodology.

are directed to large infrastructure and irrigation projects (B. Mosello, personal communication, 24 January 2015).

Table 4 Distribution of climate finance by project categories

Project categories	% of total funds	Funds approved (US million)	Funds disbursed (US million)	No. of projects
Water supply and sanitation activities (A)	9%	\$11.0	\$-	1
Other water-related activities (B)	3%	\$3.2	\$1.0	2
Indirectly related to water (C)	16%	\$20.1	\$5.3	2
Not related to water (D)	72%	\$88.8	\$13.5	15

Source: CFU (2014).

The projects listed in the CFU database encompass both national and sub-national level activities. National projects or programmes, such as the NAPA, the Strategic Climate Institutions Programme (SCIP) or 'Strengthening Climate Information and Early Warning Systems to Support Climate Resilient Development', are generally related to environmental policy and administrative management. Sub-national activities are concentrated on renewable energy investments (i.e. geothermal and wind farm development), and specific adaptation activities, such as IWRM and coping with drought.

To have a better understanding of the types of activities funded by climate finance, we have summarised the main project features for all projects categorised as either A or B in the following sections.

4.1 WASH and water-related activities

Table 5 shows some of the proposed adaptation activities to cope with climate change as described in the 1st National Communication to the UNFCCC and the NAPA, focussing on WASH and water-related activities. Based on this list, it is possible to assert that all the projects categorised as A or B seem to be adequately targeting the potential climate change impacts identified in Table 2. For instance, the 'Project for Rural Water Supply in the Tigray Region' aims to increase access to a safe drinking water source and reduce the incidence of water-related diseases, both of which are encompassed below. Likewise, the project 'Coping with Drought and Climate Change' encompasses some of the activities outlined below for agriculture and water resources.

Table 5 Proposed adaptation options to cope with climate change impacts

Sector	Options
Agriculture	<ul style="list-style-type: none"> ▪ Enhancing erosion control. ▪ Proper use of climate information for land use planning and early warning systems. ▪ Selection of crops and cropping systems that maximise biomass production and therefore, CO₂ and N₂ fixation (highlands). ▪ Promotion of irrigation for agricultural development (lowlands). ▪ De-stocking of livestock on a regular basis (lowlands). ▪ Capacity building and institutional strengthening of the local community. ▪ Water resources development.
Water resources	<ul style="list-style-type: none"> ▪ Allocation of water supply through market-based systems. ▪ Conservation of water and use of river basin planning and coordination. ▪ Construction of reservoirs for hydropower, irrigation, water supply, flood control mechanisms and drought monitoring systems. ▪ Introduction of water quality monitoring systems. ▪ Integrate and implement climate adaptation options in river basin master plan studies. ▪ Introduction of wise use and management of wetlands to improve recharging capacity of groundwater. ▪ Introduction of drip irrigation systems. ▪ Introduction of integrated watershed management. ▪ Regulation and prevention of inadequate discharge of domestic and industrial wastes as well as toxic chemical pollutants that cause hazards from entering into water bodies.
Human health	<ul style="list-style-type: none"> ▪ Promote integrated vector control approach. ▪ Strengthening research in the health sector. ▪ Encouraging utilisation of climate and meteorological information in the planning of malaria control. ▪ Establish climate and health awareness, training and research programs.

Source: NMSA (2001); NMA (2007).

4.1.1 Project for Rural Water Supply in Tigray Region (A)

This project aims to provide access to improved drinking water sources to 60,000 people in the Tigray region, one of the most vulnerable to climate change. The project is funded by Japan's FSF through the Japan International Cooperation Agency, and is due to end this year. A total of US \$11 million were approved through a grant scheme.

Project characteristics

Funders	Japan International Cooperation Agency (JICA)
Focus	Adaptation
Financial instrument	Grant
Project cost	US \$10.99 (JICA contribution)
Approval / closing year	2006 / 2015
OECD CRS coding	14020 / 14030 / 14031

Source: CFU (2014) and OECD DAC database.

Context

In 2006, only 33% of the population in the Tigray region had access to clean drinking water – most of the people relied on unprotected streams and other surface water sources. Women and girls were the main water carriers, sometimes losing a significant amount of time collecting water for their households, which also prevented them from going to work or school. The area also experienced a high incidence of water-related diseases, which could be easily prevented via increased access to improved water sources.

Project objectives

The project aims to increase safe water access from 420,000 to 480,000 people by 2015 (equivalent to a 5% increase in access to safe water from 33% in 2006 to 38% by 2015). Through increased access to improved water source, the project expects to reduce both health hazards and the amount of time spent by women and girls collecting water.

The grant finances water supply in 10 woredas, including the construction and repair of water supply facilities and key machinery to repair wells.

4.1.2 Adapting to Climate Change by Improving Water Resources Management (B)

Project characteristics

Funders	Germany's International Climate Initiative
Focus	Adaptation
Financial instrument	Grant
Project cost	US \$2.15 (Germany's ICI contribution)
Approval / closing year	2009 / 2012
OECD CRS coding	41010

Source: CFU (2014) and IKI (2013).

Project objectives

This project aimed to improve the ability of Ethiopian farmers to adapt to climate change by promoting sustainable water resources management, improving irrigation productivity, and using treated waste water (IKI, 2013).

4.1.3 Coping with Drought and Climate Change (B)

This project aimed to reduce the vulnerability of small-holder farmers and pastoralists in Kalu Woreda, a drought-prone area of Ethiopia. This population group was found to be at high risk from climate variability and change due to its high dependence on rain fed agriculture, low socioeconomic status and limited adaptive capacity (GEF, n. d.).

Project characteristics

Funders	Special Climate Change Fund (SCCF)
Focus	Adaptation
Financial instrument	Grant
Project cost	US \$2.9 million
Approval / closing year	2009 / 2012
OECD CRS coding	Not found in the CRS.

Source: CFU (2014) and UNDP (2012).

Context

Ethiopia has historically experienced recurrent droughts, which are projected to become more severe as temperature increases and rainfall declines, especially in northern areas of the country.

The project was piloted in 6 villages in Kalu Woreda, which is a drought-prone and food insecure region. There were approximately 39,000 people in the woreda at the time the project was approved; 20% of households were female-headed; and the dominant crops grown were sorghum, haricot bean, chickpea and maize (UNDP, 2012).

Similar projects were also piloted in Mozambique, Kenya and Zimbabwe.

Project objectives

This project aimed to enable rural communities in the region to adapt to water scarcity and drought by improving their livelihood strategies and resilience, enhancing the use of early warning information systems, and integrating drought preparedness and mitigation activities across different sectors. The project was expected to directly benefit around 41,000 people, with indirect benefits through the replication of best practices to 186,000 people (UNDP, 2012).

In particular, the project aimed to achieve the following targets:

1. Reduce the vulnerability to climate change by 20% for men, women and children in pilot sites;
2. Ensure 25% of households adopt alternative livelihood strategies introduced by the project;
3. Ensure 25% of targeted villages adopt sustainable land management practices introduced by the project;
4. Disseminate weather and drought information across 90% of pilot sites;
5. Ensure 50% of households use weather forecast information; and
6. Ensure 20% of farmers outside the pilot area replicate or adopt best practices.

Achievements

The project provided access to safe water to almost 4,000 people through the development of 6 water points. The installation of bee hives and bee colonies allowed 300 households to have an additional source of income, while 1,652 households benefited from the use of improved seeds and techniques (including small scale irrigation). Overall, improvements in soil and crop productivity and food security were observed in targeted villages. Farmers also collected rainfall and temperature data on a recurrent basis to develop risk assessments and disseminate them across nearby communities (UNDP, 2012).

4.2 Future scope for water projects

Both climate finance policy and architecture are still very much under development in Ethiopia, which gives some scope for mainstreaming of water projects in the climate change agenda and priority sectors in the CRGE facility. Although the linkages between climate change and water security have been outlined in both national and international frameworks, there is generally limited interest from donors to invest in the sector, unless investments are related to renewable energy development or agriculture and food security.

Stronger linkages between water and other sectors and more awareness is required to secure climate finance for water security in the future (G. Wolde and A. Endeshaw, personal communication, 20 January 2015). More broadly, local capacity needs to be further developed to enhance transparency and accountability and develop suitable monitoring systems (B. Simane, personal communication, 20 January 2015). Capacity gaps have also been identified with regards to water resource management and hydrology knowledge due mainly to high staff turnover (B. Mosello, personal communication, 24 January 2015). Clear guidelines for project selection also need to be agreed by all stakeholders – although project selection criteria have been proposed in the NAPA⁵, these were not mentioned by any interviewee. There is generally some idea of where the main vulnerabilities are, but there seems to be no consensus as to how these should be prioritised.

There are several projects and proposals currently under development. The Environment and Forest Research Institute is developing proposals focusing on (W. Merete, personal communication, 21 January 2015):

- Advocacy and policy;
- Environmental pollution, waste management and technologies;
- Carbon sequestration and renewable energy;
- Integrated waste management;
- Aquatic ecology and wetland management;
- Biodiversity and natural resources management;
- Soil fertility; and
- Land use and land cover change evaluation.

Water is also a priority for the Oromia Rural Land and Environmental Protection Bureau, and they have many initiatives directed towards water conservation and protection, reforestation and sustainable livelihoods, and renewable energy (M. Mussa, personal communication, 23 January 2015).

⁵ Criteria includes: (1) impact on economic growth and poverty reduction; (2) complementarities with national and sectoral plans; (3) climate change hazards; (4) synergies with multilateral environmental agreements; and (5) cost-effectiveness (NMA, 2007, p. 46).

5 Conclusions and policy recommendations

5.1 Conclusions

1. Ethiopia is highly susceptible to climate impacts, with a historic trend of increasing temperatures. Precipitation patterns, however, are highly variable, and the country has experienced regular periods of both drought and floods over recent years. While temperatures are predicted to increase steadily, the picture with regards to rainfall is more complex, with projections indicating a high level of variability at the national level and even greater levels at the sub-national level. As such, it is not currently possible to say whether climate change will result in a wetter or drier climate across large parts of Ethiopia.
2. Water resources are significant, but unevenly distributed within the country. Climate change impacts are likely to lead to greater frequency of flood and drought events. Sector impacts are likely to be greatest in the agriculture and energy sectors (due to hydropower). Potential climate impacts in relation to water access include the drying of shallow water sources, saline intrusion in coastal areas, and increased water stress due to over-abstraction of groundwater sources. The impact of climate change on groundwater availability and quality is uncertain, and much depends on the timing, frequency, and distribution of rainfall.
3. Since 2010, Ethiopia has been developing a Climate Resilient Green Economy (CRGE) policy which seeks to bring together a range of sector initiatives under a unified framework. This is accompanied by a financing facility that will provide direct funding to federal and regional governments, and allow access to non-state actors. The focus of the facility is primarily on mitigation (renewable energy, forestry), but there is some scope for adaptation activities (with a particular focus on agriculture). WASH and water security more generally are not currently priority themes within the CRGE.
4. The CFU identifies more than US \$120 million in flows from dedicated climate funds since 2003, although the total sum spent on climate change (in terms of climate relevant ODA and national budget contributions) is significantly higher. The majority of these funds have been oriented towards adaptation, with less going to mitigation – contrary to the CRGE Facility focus described above. Most of the funds have been distributed as grant finance. Only one project is directly related to WASH, with two more related to drought and water resource management.

5.2 Recommendations

1. WaterAid should work closely with partners, especially the Ministry of Water, Irrigation and Energy, the Ministry of Environment and Forests, the Ministry of Finance and Economic Development, and with NGOs, like Farm Africa, to advocate for climate change *vis à vis* water security, and establish a 'consortium' for ensuring that WASH and wider water-related issues are adequately reflected in policy frameworks. The Second Growth and Transformation Plan, and CRGE process provide entry points for discussion.
2. WaterAid should engage in advocacy activities for climate finance to be mobilised for a broader range of water security issues. It should work to promote climate and water security as a broader encompassing area than simply a hydropower or agriculture issue within the CRGE facility, and seek to ensure that WASH concerns form part of the Sector Investment Plans under development.

- 3.** In relation to the above, WaterAid may extend its technical support / advisory service to other stakeholders who may be seeking to access funds for WASH-related activities in terms of designing or formulating proposals from a climate finance perspective.

References

- Calow, R., Ludi, E., & Tucker, J. (Eds.). (2013). *Achieving Water Security - Lessons from research in water supply, sanitation and hygiene in Ethiopia*. Rugby, UK: Practical Action Publishing Ltd.
- Diao, X., & Pratt, A. N. (2007). Growth Options and Poverty Reduction in Ethiopia - An Economy-Wide Model Analysis. *Food Policy*, (32), 205–228.
- Eshetu, Z., Simane, B., Tebeje, G., Negatu, W., Amsalu, A., Berhanu, A., ... Canales-Trujillo, N. (2014). *Climate finance in Ethiopia*. London, UK and Addis Ababa, Ethiopia: ODI / Climate Science Centre. Retrieved from <http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8995.pdf> [accessed on 9 March 2015].
- Ethiopian Economic Association (EEA), & Economic Policy Research Institute (EPRI). (2010). *The Social Dimensions of Adaptation to Climate Change in Ethiopia* (No. 14). Washington, DC: The World Bank.
- Federal Democratic Republic of Ethiopia (RoE). (2011). *Ethiopia's Climate-Resilient Green Economy*.
- Federal Democratic Republic of Ethiopia (RoE). (2013). *Climate Resilient Green Economy (CRGE) Facility - Operations Manual*.
- Frenken, K. (2005). Irrigation in Africa in figures AQUASTAT Survey - 2005 (No. 29) (pp. 219–232). Rome: Food and Agriculture Organization of the UN (FAO). Retrieved from ftp://ftp.fao.org/aql/aqlw/docs/wr29_eng_including_countries.pdf [accessed 5 March 2015].
- Global Environmental Facility (GEF). (n.d.). SCCF funded project (UNDP) - “Coping with Drought and Climate Change in Ethiopia.” Retrieved from http://www.thegef.org/gef/sites/thegef.org/files/documents/document/Ethiopia_0.pdf [accessed 17 March 2015].
- International Climate Initiative (IKI). (2013, April). *Adapting to Climate Change by Improving Water Resources Management*. Retrieved from <http://www.international-climate-initiative.com/en/projects/projects/details/adapting-to-climate-change-by-improving-water-resources-management-232/> [accessed 18 March 2015].
- McSweeney, C., New, M., & Lizcano, G. (2010). *UNDP Climate Change Country Profiles: Ethiopia*.
- McSweeney, C., New, M., Lizcano, G., & Lu, X. (n.d.). *The UNDP Climate Change Country Profiles Improving the Accessibility of Observed and Projected Climate Information for Studies of Climate Change in Developing Countries* (No. 91) (pp. 157–166).
- Ministry of Foreign Affairs of Japan. (2010, January 26). *Exchange notes for grant aid for the Federal Democratic Republic of Ethiopia - The Project for Rural Water Supply in Tigray Region*. Retrieved from http://www.mofa.go.jp/announce/announce/2010/1/0126_01.html [accessed 5 March 2015].
- National Meteorological Agency (NMA). (2007). *Climate Change National Adaptation Programme of Action (NAPA) of Ethiopia*. Addis Ababa, Ethiopia: Ministry of Water Resources.
- National Meteorological Services Agency (NMSA). (2001). *Initial National Communication of Ethiopia to the United Nations Framework Convention on Climate Change (UNFCCC)*. Addis Ababa, Ethiopia: Ministry of Water Resources.

- Niang, Y., Ruppel, O., Abdrabo, M., Essel, A., Lennard, C., Padgham, J., & Urquhart, P. (2014). Africa. In V. Barros, C. Field, D. Dokken, M. Mastrandrea, K. Mach, T. Bilir, ... L. White (Eds.), *Climate Change 2014: Impacts, Adaptation and Vulnerability. Part B: Regional Aspects. Contribution of WG II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 1199–1265). Cambridge, UK and New York, US: Cambridge University Press.
- United Nations Development Programme (UNDP). (2012, March). *Coping with Drought and Climate Change in Ethiopia*. UNDP. Retrieved from <http://www.et.undp.org/content/dam/ethiopia/docs/Final%20Case%20study.pdf> [accessed 17 March 2015].
- World Bank. (2010). *Economics of Adaptation to Climate Change - Ethiopia*. Washington, DC: The World Bank.

Annex A List of CFU projects and categorisation

ODA	OOF	CRS Code	Climate tag	OPM category	Project	Focus
Y		41010	Y	B	Adapting to Climate Change by Improving Water Resources Management	Adaptation
Y		23066 / 43010	N	D	Aluto Langano Geothermal Project	Mitigation
				D	Assela Wind Farm Project	Mitigation
				D	Clean Energy SME Capacity Building & Investment Facility	Mitigation
Y		41082	Y	D	Climate Change Mitigation and Primary Forest Conservation A Best-Practice Management Scheme for Wild Coffee Forests in Ethiopia	Mitigation
Y		41010	Y	D	Climate High-Level Investment Programme	Adaptation
				B	Coping with Drought and Climate Change	Adaptation
Y		41010	Y	D	Enabling pastoral communities to adapt to climate change and restoring rangeland environments	Adaptation
Y		31210	Y	C	Forest Preservation Programme	REDD
				D	Geothermal Sector Development Project	Mitigation
				D	Geothermal Sector Strategy	Mitigation
				D	Indirect centralized management to AFD and GTZ	Adaptation
				D	Lighting Ethiopia	Mitigation
				D	National Adaptation Programme of Action (NAPA)	Adaptation
Y		14020 / 14030 / 14031	Y	A	Project for Rural Water Supply in Tigray Region	Adaptation
Y		74010	N	C	Promoting Autonomous Adaptation at the community level in Ethiopia	Adaptation
Y		23010	Y	D	Promoting Sustainable Rural Energy Technologies (RETs) for Household and Productive Uses	Mitigation
				D	Readiness preparation grant - Ethiopia	REDD
Y		41010	Y	D	Strategic Climate Institutions Programme (SCIP)	Multiple foci
Y		41010	Y	D	Strengthening Climate Information and Early Warning Systems in Ethiopia to Support Climate Resilient Development	Adaptation

Annex B List of stakeholders consulted

The following stakeholders were interviewed as part of the country case study.

#	Name and position	Organisation	Date
1	Mr. Gossa Wolde , Design & Quality Assurance Coordinator	WaterAid	20 Jan 2015
2	Mr. Abera Endeshaw , Senior Policy and Influencing Officer	WaterAid	20 Jan 2015
3	Dr Belay Simane , Climate Science Centre Coordinator	Addis Ababa University	20 Jan 2015
4	Dr Berhanu Mengesha , GCCA Ethiopia Project Coordinator	GIZ	20 Jan 2015
5	Mr. Weldemedhin Merete , Researcher	Environment and Forest Research Institute	21 Jan 2015
6	Dr Solomon Zewdie , National REDD+ Coordinator	Ministry of Environment and Forest, REDD+ Secretariat	21 Jan 2015
7	Dr Alganesh Tesema , Director of Protected Forests and Degraded Lands	Ministry of Environment and Forest, Protected Forests and Degraded Lands	21 Jan 2015
8	Dr Mulugeta Lemenih , Head of Forestry	Farm Africa	21 Jan 2015
	Mr Kinfe Terefe , Climate Smart Value Chain Advisor		
	Mr. Lulu Likassa , REDD+ Coordinator		
9	Mrs. Belaynesh Biru , Environmental and Social Impact Assessment Acting Director	Ministry of Water, Irrigation, and Energy	22 Jan 2015
10	Mr. Robel Takele , Junior Researcher Dr Girma Mamo , Researcher	Ethiopian Agriculture Research Institute	22 Jan 2015
11	Dr Tesfaye Haile , Climate Change Expert	Ministry of Agriculture	22 Jan 2015
12	Daniel Kim Chai Yeo , Water and Energy Advisor	GGGI / Ministry of Water, Irrigation, and Energy	22 Jan 2015
13	Mohammad Ibrahim Mussa , Deputy Bureau Head and Environmental Protection Core Process Owner	Oromia Rural Land and Environmental Protection Bureau	23 Jan 2015
14	Dr Yigremachew Seyoum , Director of Forest Policy, Strategy and Regulations	Ministry of Environment and Forest	23 Jan 2015
15	William Battye	GGGI / Advisor to Ministry of Finance and Economic Development	24 Jan 2015
16	Beatrice Mosello , Research Officer	ODI / Water Policy	24 Jan 2015
Follow-up interviews			
17	William Battye	GGGI / Advisor to Ministry of Finance and Economic Development	8 June 2015
18	Adugna Namera , Monitoring and Evaluation Specialist	CRGE Facility, Ministry of Finance and Economic Development	20 June 2015