



# COUNTRY EXPERIENCES WITH DECENTRALISED CLIMATE FINANCE

## EARLY OUTCOMES

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Working paper



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# Contents

Acronyms and abbreviations	3
Executive summary	5
1. Introduction	8
1.1 Background and rationale for the paper	8
1.2 Scope of the paper and research questions	9
2. Methodology	11
2.1 Analytical framework	11
2.2 The approach to: How is climate resilience being defined and measured at the international, national and sub-national levels?	13
2.3 The approach to: What outcomes have been achieved by decentralised and centralised approaches, and what can be learned?	13
2.4 The approach to: To what extent does the level of government involved in the investment decision-making process affect the results of activities that aim to strengthen climate resilience?	16
3. International Climate Funds	18
3.1 Climate resilience	18
3.2 How is climate resilience defined and measured in the PPCR?	20
3.3 How is climate resilience defined and measured in the GCF?	22
3.4 How is climate resilience defined and measured in the AF?	23
3.5 Lessons learned	25
4. Country experiences	26
4.1 Country experiences in making climate-resilience investments	26
4.2 How is climate resilience being defined and measured at the national and sub-national levels?	28
4.3 What outcomes have been achieved from climate-finance investments, and what can be learned?	31
4.4 To what extent does the level of government involved in the investment decision-making process affect the outcomes of activities that aim to strengthen climate resilience?	34
4.5 Are DCF investments building climate resilience, and how do they differ from more centralised approaches?	36
References	38
Annex 1. Early outcomes of climate finance in Ethiopia: experiences from the agricultural sector FTI projects	41
Annex 2. Early outcomes of climate finance in Kenya: experiences from the CCCF mechanism	57
Annex 3. Early outcomes of climate finance in Mali: experiences from three DCF investments	79
Annex 4. Early outcomes of climate finance in Senegal: experiences from three DCF investments	94

## Acronyms and abbreviations

<b>AF</b>	Adaptation Fund
<b>ARD</b>	Regional Development Agency of Kaffrine (Senegal)
<b>BRACED</b>	Building Resilience and Adaptation to Climate Extremes and Disasters Programme
<b>CBO</b>	Community-based organisation
<b>CCA</b>	Communal Adaptation Committee (Mali)
<b>CCCF</b>	County Climate Change Funds (Kenya)
<b>CCCPC</b>	County Climate Change Planning Committee (Kenya)
<b>CDAs</b>	Department Adaptation Committee (Senegal)
<b>CIF</b>	Climate Investment Funds
<b>CRGE</b>	Climate Resilience Green Economy (Ethiopia)
<b>DCF</b>	Decentralised climate funds
<b>DFID</b>	UK Department for International Development
<b>DM</b>	Decision-maker
<b>EE</b>	Executing Entity
<b>FTIs</b>	Fast-Track Investments (Ethiopia)
<b>GCF</b>	Green Climate Fund
<b>GEF</b>	Global Environmental Facility
<b>IE</b>	Implementing Entity
<b>IIED</b>	International Institute for Environment and Development
<b>IPPC</b>	Intergovernmental Panel on Climate Change
<b>KPI</b>	Key performance indicators
<b>LDCF</b>	Least Developed Countries Fund
<b>LoCAL</b>	UNCDF Local Climate Adaptive Living Facility
<b>MDB</b>	Multilateral Development Bank
<b>MoA</b>	Ministry of Agriculture (Ethiopia)
<b>M&amp;E</b>	Monitoring and evaluation
<b>NAPA</b>	National Adaptation Plan of Action
<b>NDC</b>	Nationally determined contribution

<b>NEF</b>	Near East Foundation
<b>PNDL</b>	<i>Programme National de Développement Local (Senegal)</i>
<b>PPCR</b>	Pilot Programme for Climate Resilience
<b>SPCR</b>	Strategic Programmes for Climate Resilience
<b>TAMD</b>	Tracking Adaptation and Measuring Development
<b>ToC</b>	Theory of Change
<b>UNFCCC</b>	United Nations Framework for the Convention on Climate Change
<b>USAID</b>	United States Agency for International Development
<b>VfM</b>	Value for Money
<b>WCCPC</b>	Ward Climate Change Planning Committee (Kenya)
<b>WoA</b>	Woreda Office of Agriculture (Ethiopia)

## Executive summary

This Building Resilience and Adaptation to Climate Extremes and Disasters Programme (BRACED) research study explores whether public investments made by government-led climate funds in Ethiopia, Kenya, Mali and Senegal are building climate resilience that responds to locally determined priorities. The climate fund in Ethiopia is a centralised, national fund, whereas in Kenya, Mali and Senegal public funding is delivered through decentralised finance mechanism, which are the same in design.

With a focus on the principles of effectiveness and equity, the evaluation of a small sample of investments in each country has allowed an exploration of three questions:

1. How is climate resilience being defined and measured at the national and sub-national levels?
2. What outcomes have been achieved from climate finance investments, and what can be learnt?
3. To what extent does the level of government involved in the investment decision-making process affect the outcomes of activities that aim to strengthen climate resilience?

An international perspective on the first question is provided by the multilateral climate funds that have the most experience in investing in climate adaptation to build resilience: the Adaptation Fund (AF), the Green Climate Fund (GCF) and the Pilot Program for Climate Resilience (PPCR).

The level of grant funding of the climate-resilience investments reviewed is very small, with an average investment of approximately \$30,000 in Senegal, \$54,000 in Kenya and Mali, and \$168,000 in Ethiopia. This reflects the small-scale seed funding provided by these climate funds as they pilot new approaches to strengthening climate resilience of the intended beneficiaries.

All four countries acknowledge that the definition of climate resilience heavily depends on local context. Economic, social and environmental dimensions of resilience are captured that are aligned with the Intergovernmental Panel on Climate Change's (IPCC's) definition of resilience to climate change. However, practically demonstrating an understanding of its impact is proving complex and there is a risk of misinterpretation across actors, which contributes to a lack of coherence across documentation. Conceptualising climate resilience has dynamic characteristics and further efforts should focus on:

- increasing the capacity of national and sub-national government to address the complexities behind defining climate resilience, including clearer guidance on language used;
- ensuring the continuous mainstreaming of climate adaptation into public programmes and investments;
- promoting adaptation to climate change not only as a public good, but a global public good.

All investment outcomes explored in this research show positive trajectories towards the intended impact of increased climate resilience, with the strengthening of household welfare being more central to the design of the decentralised climate finance (DCF) mechanisms.

Strengthening the relationship between different actors involved in the delivery of climate finance has shown to maximise the prospect of sustainability of climate-resilience investments. The DCF mechanism in Kenya, Mali and Senegal has ensured beneficiary buy-in and ownership of investments, as well as securing technical support from their respective local authority services through inclusive participatory processes. It has proved important to ensure that the decision-making process mainstreams climate vulnerable beneficiaries' perspectives, such as through the development of theories of change. However, overall, given that investment outcomes surface at different times and differ across sectors, geographies and scale – and with investment-level monitoring and evaluation (M&E) evidence being limited – there is a need to better understand the relevance and success of adaptation investments. Therefore, there is a need to promote:

- the integration of an iterative framework to identify adaptation strategies that promote decision-making that is 'risk-informed';
- closing feedback loops by ensuring reporting flows (M&E systems) from investments allow for continuous learning in building climate resilience;
- system-based solutions are needed to stimulate and create an enabling environment;
- capacity-building support for climate funds on investment design using economic appraisals;
- consideration should be given to expand value-for-money indicators for climate resilience;
- the advancement and showcasing of successes of M&E systems for climate adaptation.

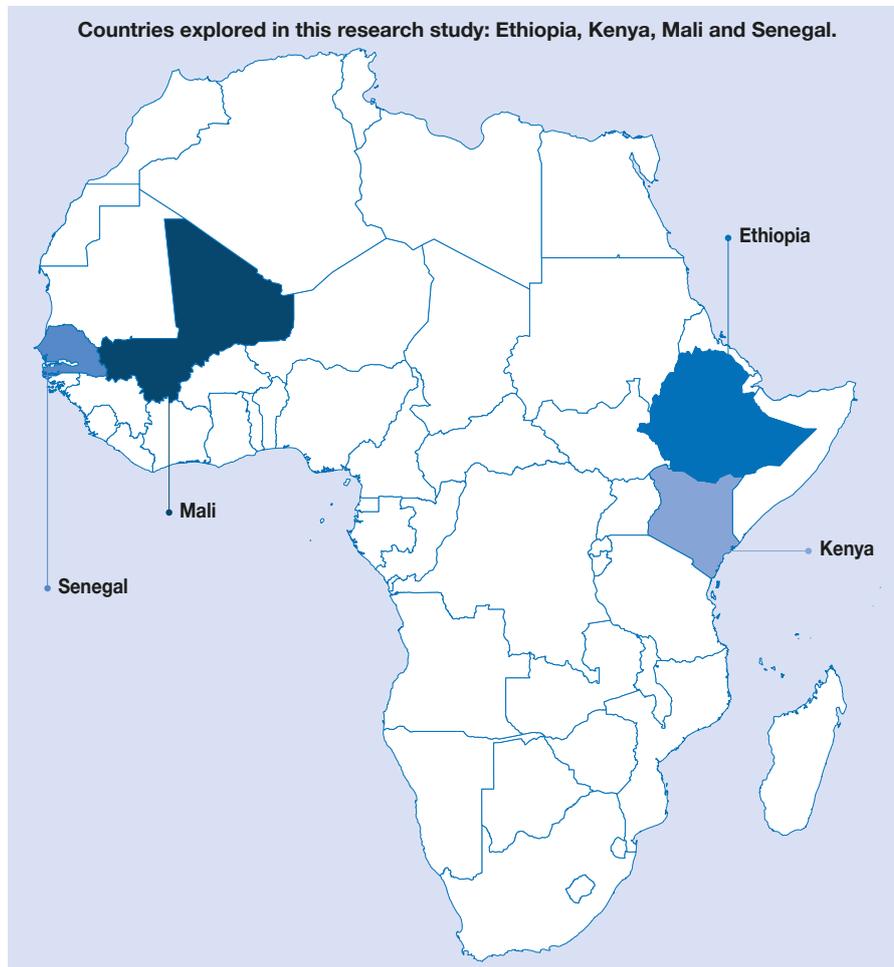
The climate funds' financing mechanisms in the four countries show strong alignment to in-country government administrative structures, but also show capacity constraints in their respective M&E systems. The key difference of the DCF mechanism as compared to the one central mechanism reviewed is how it promotes the principle of subsidiarity, allocating decision-making at multiple levels, and promoting inclusive community participation. Such an approach has led to the development and implementation of investments that better reflect communities' immediate needs and priorities, as compared to previous development interventions. Whether they are also more effective in building climate resilience is, as yet, unproven and thus is an area for continued monitoring, evaluation and learning. The overall deficit in reporting on performance may reflect a general shortfall in the reporting of public investments in all four countries, where results-based management systems are in their infancy.

The different number of actors involved in the decision-making process across centralised and decentralised experiences in the four countries sheds light on the importance of considering:

- the institutional structure of climate finance mechanisms – which needs to be clear with respect to component actors' roles and responsibilities;
- national budgetary support for sub-national actions – which is required for sustained action;
- international funding sources – which need to acknowledge the decentralisation structures in countries where support is provided;
- international partners – that can support improved risk management.

Regardless of the climate finance mechanism deployed, ensuring the long-term success and sustainability of all investment grants' intended outcomes remains uncertain because of the wider policy and development contexts, which remain highly challenging in all four countries reviewed. The effective delivery of climate finance to local communities depends on the national administrative structures through which decentralisation is delivered. The DCF approach should therefore not be characterised as working solely at the sub-national level, as its success is critically dependent on the national administrative architecture that supports decentralisation.

**Figure 1: Countries of focus in this working paper**





# 1. INTRODUCTION

Credit: UN Photo/  
Marco Dormino

## 1.1 Background and rationale for the paper

The outcomes of the 2017 United Nations Framework Convention on Climate Change (UNFCCC) COP23 meeting in Bonn, Germany demonstrate the international community's growing interest in supporting effective climate-resilient activities on the ground.<sup>1</sup> This makes assessing what climate investments have worked at the local level a timely and important task to support additional international spending for climate resilience. There is increasing evidence that effective adaptation actions are being realised at the local level, close to people's needs and priorities (Barrett, 2015;<sup>2</sup> Hesse, 2016;<sup>3</sup> Soanes et al., 2017<sup>4</sup>). The Decentralising Climate Funds (DCF) project in several countries has aimed to ensure that local communities' priorities are included in the investment decision process (Hesse, 2016). National finance arrangements also exist that may complement these decentralised approaches in helping to strengthen local climate resilience.

1 <http://sdg.iisd.org/news/cop-23-adopts-decisions-on-adaptation-fund-gender-indigenous-peoples-and-local-communities/>

2 <https://muse.jhu.edu/article/587549/pdf>

3 <http://pubs.iied.org/pdfs/Go4103.pdf>

4 <https://pubs.iied.org/pdfs/10178IIED.pdf>

This paper builds on the results of an earlier study, undertaken as part of the knowledge management generation of the Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) programme.<sup>5</sup> That study examined the experiences of climate finance delivery in Kenya and Ethiopia, and explored how centralised and decentralised climate funds take into account local priorities in investment decision processes (Caravani et al., 2016).<sup>6</sup> The two countries offered contrasting examples of governance systems, with a decentralised approach in Kenya and a centralised approach in Ethiopia. The paper found trade-offs between how local priorities were included in the investment decision process and ensuring that these were aligned with long-term national climate goals.

As part of the ongoing knowledge management of BRACED X Theme 3 on climate finance, this paper takes a more in-depth look at the actors involved in delivering investments that aim to deliver public goods<sup>7</sup> to build climate resilience using national and sub-national government climate funds. It expands the country coverage to include Mali and Senegal, where the DCF mechanism has been established with support from the BRACED programme. It retains the Ethiopia country case study as an example of a centralised climate fund supporting the strengthening of beneficiaries' climate resilience and the Kenya country case study, which has established DCF in several regions of the country.

## 1.2 Scope of the paper and research questions

This paper documents emerging lesson-learning on delivering climate resilience through both decentralised and centralised financing mechanisms using grant finance. Throughout the paper, the following factors are considered:

- Decentralised mechanisms use climate finance that is mobilised by sub-national climate funds (DCF) embedded in sub-national government. Centralised mechanisms refer to climate finance mobilised by national climate funds embedded in national government.
- The experience of four countries is reviewed, with investment grants funded through DCF in Kenya, Mali and Senegal, together with one national climate fund in Ethiopia.
- The research takes a perspective of individual investment grants, looking at selection of investment from country portfolio, and how they have strengthened the climate resilience of beneficiaries.<sup>8</sup>

<sup>5</sup> [www.braced.org](http://www.braced.org)

<sup>6</sup> [www.odi.org/sites/odi.org.uk/files/resource-documents/11804.pdf](http://www.odi.org/sites/odi.org.uk/files/resource-documents/11804.pdf)

<sup>7</sup> Public goods – A public good is a product that one individual can consume without reducing its availability to others and from which no one is deprived: a good that is non-rivalry and non-exclusion.

<sup>8</sup> Sector analysis has not been conducted. Such analysis of government-led climate funds delivering investment grants for public goods would be interesting to depict sector-specific success' and challenges.

- To allow for some across-country learning, the roles played by four generic sets of actors are reviewed: the fund decision-maker (DM), the implementing entity (IE), the executing entity (EE) and the direct beneficiaries.<sup>9</sup> This is done whilst considering the differing social, political, economic and environmental contexts of each investment.

To explore the main thesis – *Are DCF investment grants building climate resilience and how do they differ from more centralised approaches?* – the study posed three questions in each of the four countries:

1. How is climate resilience being defined and measured at the national and sub-national level?
2. What outcomes have been achieved from climate finance investments, and what can be learned?
3. To what extent does the level of government involved in the investment decision-making process affect the outcomes of activities that aim to strengthen climate resilience?

Section 2 outlines the methodology applied in each country case study. Section 3 describes the experience of how climate resilience has been defined internationally, with a focus on those multilateral climate funds that have significant experience in adaptation investments. Section 4 then draws on the evidence from the four countries to address each of the study's questions, highlighting lesson-learning based on this experience and areas for further research. The four country experiences of Ethiopia, Kenya, Mali and Senegal are then detailed in separate annexes.

<sup>9</sup> Further elaborated on in Section 2.



## 2. METHODOLOGY

Image: Neil Palmer  
(CIAT)

### 2.1 Analytical framework

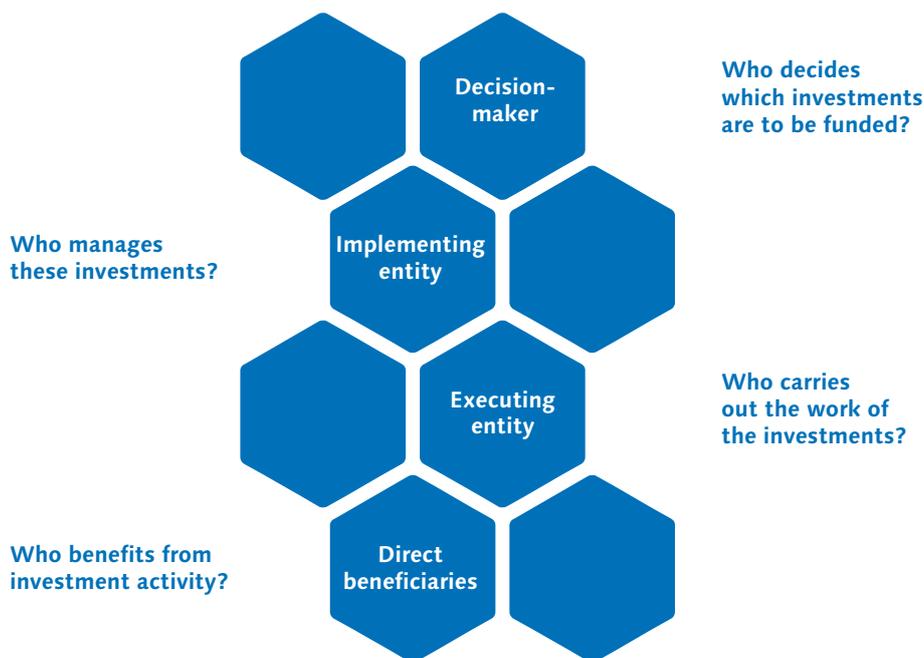
The study's three questions are explored in various ways using one over-arching analytical framework. Whether the mechanisms for implementing investment proposals follow a centralised or a decentralised approach, actors involved in the delivery of an investment have specific roles and responsibilities (See Table 1 and Figure 2). Due to different institutional structures in each country, some actors may fulfil more than one function. However, clarity over the role played by each actor is important to an understanding of the implementation arrangements. It is key to note that Kenya, Mali and Senegal have undergone the same designed DCF mechanism, where we are exploring the different experiences.

**Table 1: Roles played by climate fund actors**

DECISION-MAKER FUNCTIONS	IMPLEMENTING ENTITY FUNCTIONS	EXECUTING ENTITY FUNCTIONS
<ul style="list-style-type: none"> <li>• Develops strategies, policies and guidelines for funding</li> <li>• Reviews proposals submitted for funding</li> <li>• Decides who receives funding</li> <li>• Instructs trustee to transfer funds to eligible implementing bodies</li> <li>• Monitors implementation progress</li> <li>• Accountable to fund source for expenditures</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of projects</li> <li>• Preparation of project concepts</li> <li>• Appraisal of project concepts</li> <li>• Preparation of project documents</li> <li>• Approvals and start-up of projects</li> <li>• Supervision of projects</li> <li>• Evaluation of projects</li> <li>• Accountable to decision-maker for use of funds</li> </ul>	<ul style="list-style-type: none"> <li>• Management and administration of day-to-day project activities</li> <li>• Undertakes procurement and contracting of goods and services</li> <li>• Accountable to implementing body for use of funds</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

**Figure 2: Actors involved under a general institutional structure to deliver an investment on the ground**



Source: ODI.

This framework guides the approach taken to answer the study's three questions. The first question documents the definitions and indicators used to measure climate resilience and considers the perspective of all four actors. The second question focuses on the results of the investments that aim to achieve climate resilience, emphasising the perspectives of the executing entity and direct beneficiaries. Question three then looks at the influence that the decision-maker and implementing entity have on the results achieved. Overall, the significance of where the decision-maker(s) sits in each of the chosen investments is explored.

## 2.2 The approach to: How is climate resilience being defined and measured at the international, national and sub-national levels?

Climate resilience remains a complex concept, reflecting a diversity of understanding among different stakeholders. Multilateral climate funds, national governments, sub-national authorities and beneficiaries have different priorities and capacities as well as various levels of access to knowledge resources. Therefore, it is highly likely that their perspectives of climate resilience differ. This first question – How is climate resilience being defined and measured at the international, national and sub-national levels? – documents these definitions and investment indicators, as determined at the international, national and local levels, in order to gain a clearer understanding of the goal that climate-resilience investments aim to achieve. A two-phased approach is adopted to identify: (a) the definitions and core indicators for building climate resilience, as set out by the multilateral climate funds that have led much of this enquiry; and (b) the definitions and core indicators used by domestic actors (national and sub-national) involved in climate funds, which may include communities' perspectives.

In analysing investments, definitions of climate resilience can be found at three stages of the climate finance cycle:

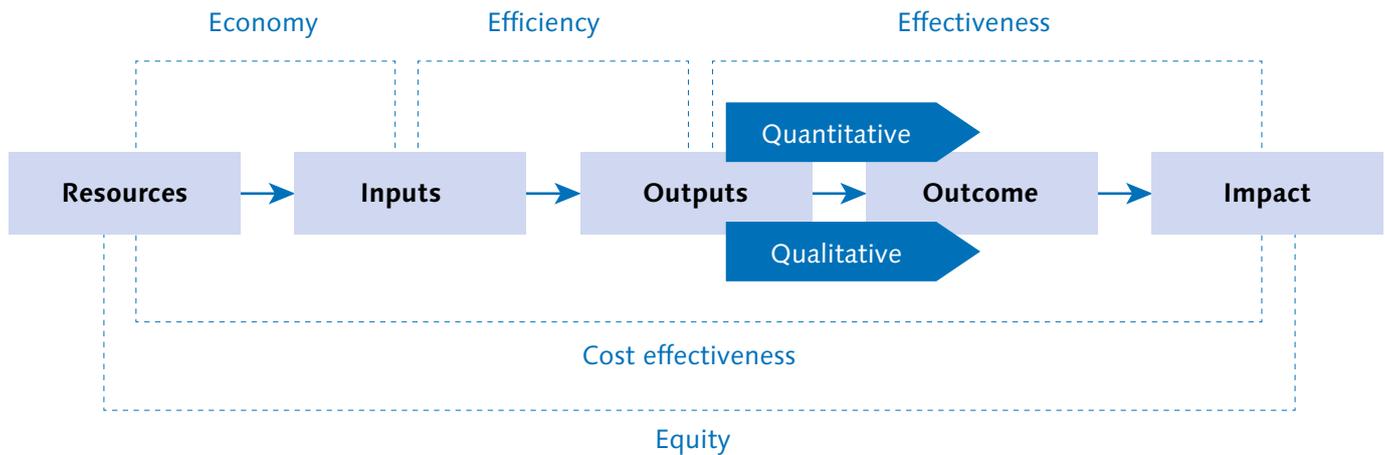
- the overarching fund;
- the eligibility criteria used for investment selection;
- the success criteria by which investments are assessed.

The manner in which each of these stages is approached helps determine how the impact of investments can be assessed. It also offers insights into the consistency of the use of the term 'climate resilience', recognising the definitional ambiguity that exists. Lastly, all investments considered in this research are grant financing that are offered and delivered by government-led climate funds.

## 2.3 The approach to: What outcomes have been achieved by decentralised and centralised approaches, and what can be learned?

Whether investments implemented on the ground achieve their intended impact or not depends on the success and execution of: the investment design process, the implementation process, and the M&E process. Investment outcomes are often measured through the Value for Money (VfM) evaluation tool (Figure 3), which has therefore been used to guide this particular area of the study.

Figure 3: DFID VfM conceptual framework



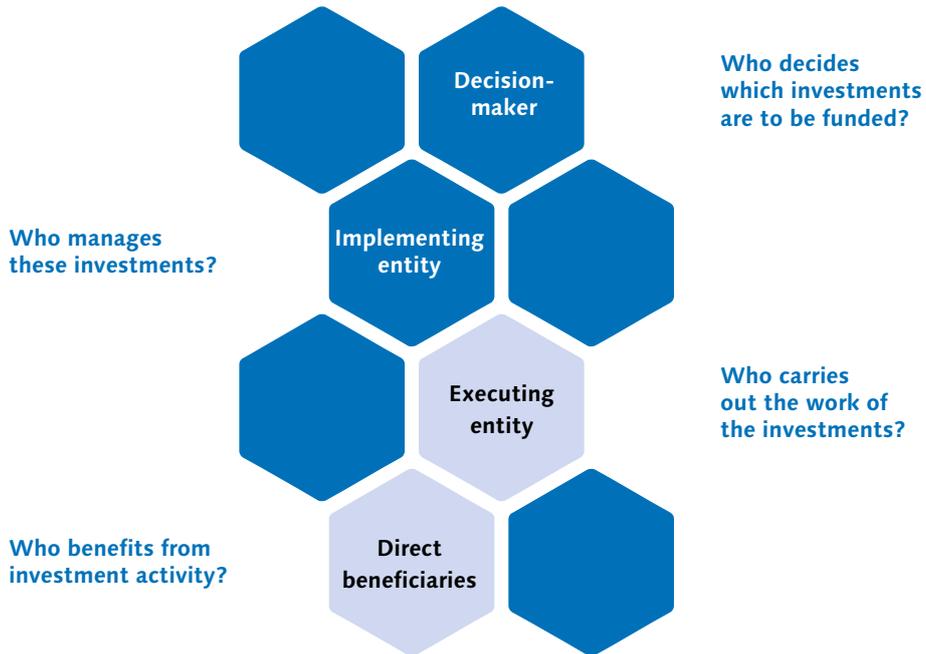
Source: DFID.

However, two common constraints in using this tool are the difficulties in acquiring detailed cost information and taking into account the complexities associated with realising climate resilience, given the long time horizons of climate change and associated high uncertainties. This study has therefore only used the VfM evaluation tool as an entry point to capture progress on climate resilience growth trajectories, emphasising the indicators of effectiveness and equity:

- **Effectiveness** (spending wisely) is captured by looking at progress of outputs in delivering desired outcomes and securing impact.
- **Equity** (spending fairly) is captured by looking at commitments to 'leave no-one behind', with a focus on the most climate-vulnerable beneficiaries, and an assessment of fairness in relation to need. Due to synergies between tackling climate adaptation and poverty alleviation, it is commonly accepted that international funding for adaptation should address the needs of those most affected by climate change.

To address question two – What outcomes have been achieved by decentralised and centralised approaches, and what can be learned? – the outcomes of each investment aimed at achieving climate resilience are explored in all four countries, with a focus on the experiences of executing entities and direct beneficiaries (Figure 4).

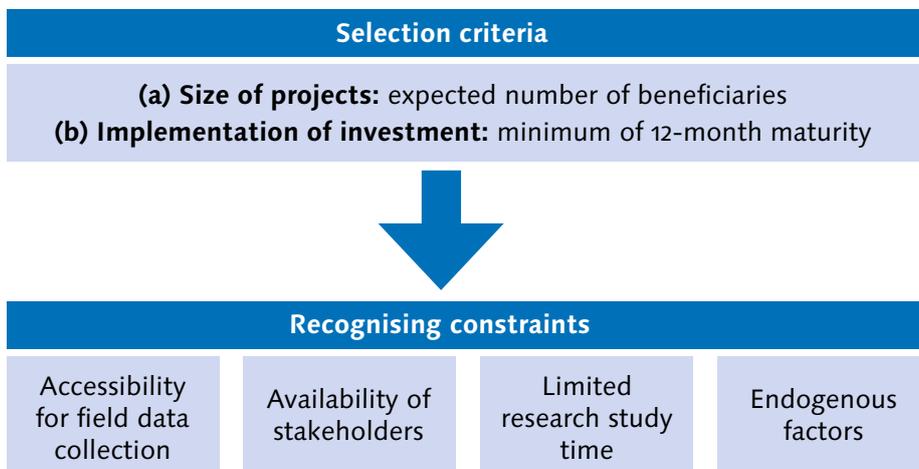
**Figure 4: Question 2 focuses on the experiences of executing entities and direct beneficiaries**



Source: Authors of Overseas Development Institute (ODI).

Given the resource constraints on this study, only three investments per country in Ethiopia, Mali and Senegal could be studied, whilst it was possible in Kenya to analyse seven investments. Investment selection was guided by two main criteria (Figure 5). The experience of larger investments (where the number of expected beneficiaries is used as a proxy) was sought out, as were investments that had at least one year since project completion, so that early outcomes might be discerned.

**Figure 5: Selection criteria and research constraints**



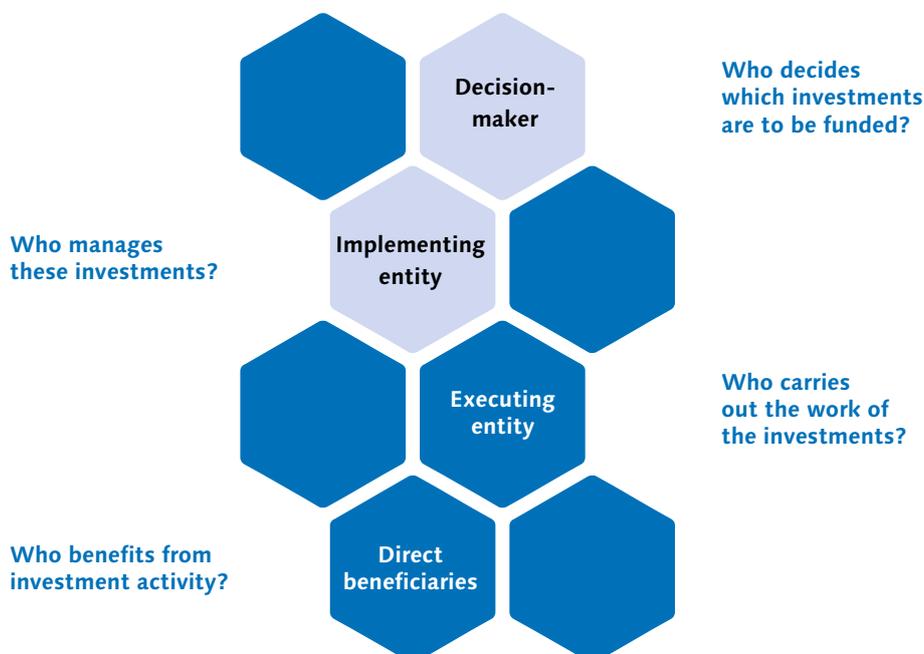
Source: Authors of Overseas Development Institute (ODI).

For each selected investment, in addition to data collected from the executing entities and responses from direct beneficiaries, information from project documents (including evaluation reports and monitoring and learning reports) was reviewed. In Mali and Senegal, household surveys associated with each investment were used to capture beneficiaries' perspectives on the outcome of DCF investments in terms of their own personal resilience and food security, with food security acting as an indicator of wellbeing.

## 2.4 The approach to: To what extent does the level of government involved in the investment decision-making process affect the results of activities that aim to strengthen climate resilience?

This third question explores how the decision-making process affects the delivery of investment outcomes. This question aims to assess the influence of the governance level at which decisions are made on the investment results obtained. More specifically, the question examines the perspective of two other actors: the decision-maker who signs-off selected investments, and the implementing entity that disburses and manages investment funds (Figure 6).

**Figure 6: Question 3 focuses on the experiences of decision-makers and implementing entities**



Source: Authors of Overseas Development Institute (ODI).

A combination of desk-based review, key stakeholder interviews and evidence from data collected from corresponding interviews helped to inform this question. As with research question two, the VfM framework was used to prepare a questionnaire for decision-makers and implementing entities. Applying this framework allowed the factors affecting the delivery of climate resilience for each investment in each country and respective district or county to be determined.

The centralised case consists of a national institution governing the investment, with one decision-maker and one implementing entity. However, the institutional structures are more complex in the decentralised cases, where decision-making occurs at various levels of decentralisation and actors play multiple roles.

A photograph of a rural landscape with a person plowing a field using oxen. The scene is set against a backdrop of rolling hills and a clear sky. The image is overlaid with a semi-transparent blue filter.

# 3. INTERNATIONAL CLIMATE FUNDS AND CLIMATE RESILIENCE

Image:  
Rod Waddington

## 3.1 Climate resilience

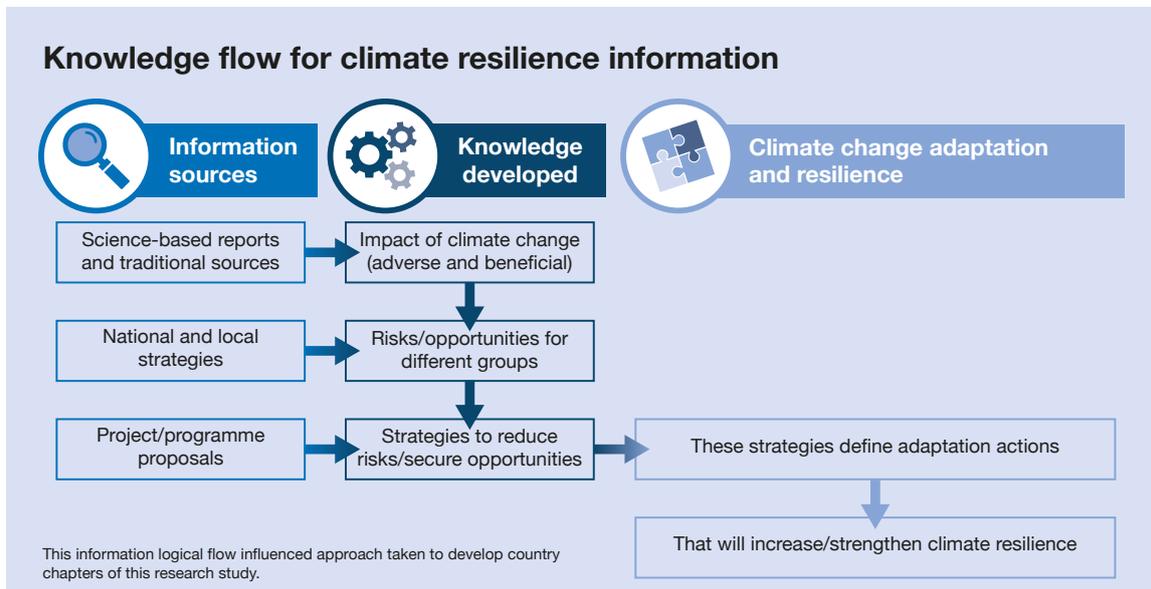
Defining resilience to climate change has proved to be a notoriously difficult endeavour (Schipper and Langston, 2015). A distinction between adaptation and resilience has been made in the literature: "some continue to view adaptation as the overarching construct under which resilience belongs – as a sub-field; whereas others view resilience as a broader and thus more preferable concept as compared to adaptation" (Williams, 2016: 6). Both concepts are dynamic in nature, reflecting the continual modification required in responding to the effects of climate change. The Intergovernmental Panel on Climate Change (IPCC) has defined these two terms as:

- Adaptation is "the process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities." (IPCC, 2014: 1758).
- Resilience is "the capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganising in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation." (IPCC, 2014: 1772).<sup>10</sup>

<sup>10</sup> IPCC (2014). Climate Change 2014. Impacts, adaptation, and vulnerability. Part A: Global and Sectoral Aspects. Working Group II Contribution to the fifth assessment report of the IPCC. Cambridge University Press.

Whilst recognising these definitional differences, this paper focuses on climate resilience, on the basis that increased or strengthened resilience is the desired state being sought by adaptation projects (Figure 7).

**Figure 7: A proposed logic of knowledge flow for climate-resilience information**



Source: ODI.

Roehrer and Kouadio (2015) note that 'many adaptation initiatives are complex, with fundamental uncertainties about the causal relationship between inputs and outcomes'. Spearman and McGray (2011) also argue that 'what constitutes adaptation depends heavily upon the specific context in which activities takes place'. Hence, when assessing an intervention there is a need to consider how climate resilience is understood and then measured at each level.

Three international climate funds that have heavily invested in climate change adaptation projects, with the aim of strengthening climate resilience, are the Pilot Program for Climate Resilience (PPCR), the Green Climate Fund (GCF) and the Adaptation Fund (AF). Other international funding is available to support vulnerable countries' efforts to adapt to climate change, including the Global Environment Facility (GEF), the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF). However, collectively, the PPCR, GCF and AF offer a broad set of experiences across differing governance arrangements and investment levels that can inform how climate resilience has been defined and measured and so, for brevity, the following sections limit discussion to these three international funds.

## 3.2 How is climate resilience defined and measured in the PPCR?

The PPCR, which was established in 2008, is the adaptation funding window of the Climate Investment Funds (CIF). Country investment plans, or Strategic Programs for Climate Resilience (SPCR), aim to support national and sectoral efforts that strengthen resilience to the impacts of climate change. This is achieved by providing financing to pilot and demonstrate ways to integrate climate-risk management and adaptation objectives into core development planning. However, an overarching definition of climate resilience appears to be absent from the PPCR programme documentation, nor are the eligibility criteria for individual investment selection documented in public reporting systems (beyond acknowledging that investments are consistent with the respective SPCR).

### The five core PPCR results indicators

Since 2012, progress of all PPCR investments is tracked using five core indicators agreed upon by the fund's Trust Fund Sub-Committee. These indicators represent a measure of not only project success but are also used to describe progress made across the entire PPCR portfolio. These five results indicators are reported upon twice a year. Reporting as of December 2018 details:<sup>11</sup>

- **Core Indicator 1:** Degree of integration of climate change into national (including sector) planning.

Results reported for 2017: the PPCR has contributed to the integration of climate change in 320 local/community development plans or strategies, 79 sectoral plans or strategies, and 19 national development plans or strategies, through 27 projects in 15 countries.

- **Core Indicator 2:** Evidence of strengthened government capacity and coordination mechanisms to mainstream climate resilience.

Results reported for 2017: 37 MDB-approved PPCR projects in 16 countries and 2 regions have provided training on climate-related topics, already reaching more than 73,000 people. Training has been provided to both government and non-government beneficiaries and has covered topics including drainage and waste water management techniques, forestry management techniques, bio-engineering, soil and water conservation, and gender mainstreaming in adaptation.

- **Core Indicator 3:** Quality and extent to which climate responsive instruments/investment models are developed and tested.

Results reported for 2017: PPCR has transformed 124,000 hectares of land and water through sustainable land and water management practices; and supported the creation of climate adaptation financing facilities that have supported more than 1,800 households and 1,200 small businesses.

<sup>11</sup> Climate Investment Funds (2018). PPCR operational and results report. December 19, 2018. PPCR/SC.23/3. Washington DC: Climate Investment Funds.

- **Core Indicator 4:** Extent to which vulnerable households, communities, businesses and public-sector services use improved PPCR-supported tools, instruments, strategies, and activities to respond to climate variability and climate change.

Results reported for 2017: The uptake of innovative tools or instruments involves more than 2,400,000 households; 27,000 businesses, 4,500 public sector service entities, and 7,000 communities.

- **Core Indicator 5:** Number of people supported by the PPCR to cope with the effects of climate change.

Results reported for 2017: More than 11 million people, including 5.3 million women, have been supported by 43 PPCR projects under implementation. The PPCR is projected to support about 45 million people to cope with the adverse effects of climate change over the lifetime of the implementation of 55 MDB-approved projects in 16 countries.

The first two of these indicators measure the enabling environment for PPCR investments, and therefore represent indirect measures of resilience. The third and fourth indicators measure the development and use of tools/measures that are considered to advance resilience, which again are indirect measures. The final results indicator is an estimate of the number of people supported 'to cope with the effects of climate change' and therefore, whilst a direct measure of climate resilience, provides an approximate value of uncertain precision. It is also limited to measuring an input (e.g. the number of people who have received support) rather than being an outcome measure of those for whom resilience to climate change has increased.

The PPCR strategy promotes a local definition of climate resilience, with project selection determined through multi-stakeholder processes associated with the preparation of SPCR. This provides considerable flexibility for nationally-determined actions to be identified, although it heightens the need to secure definitional clarity during the country-led multi-stakeholder processes. Country results are then reported upon using the standard set of indicators described above. At present, these are weighted towards input/process assessments rather than attempting a direct measurement of outcomes and impact. The use of such indicators reflects the early implementation phase of the PPCR portfolio, with only five projects completed as of December 2018.<sup>12</sup>

<sup>12</sup> CIF (2019). PPCR operations and results report. PPCR/SC.23/3. Washington DC: Climate Investments Funds.

### 3.3 How is climate resilience defined and measured in the GCF?

The GCF, established in 2010, has a different governance system to that of the CIF. The GCF Board formally approves all proposed projects and programmes submitted by accredited entities that have the support of a national designated authority from the country where the proposed investment will operate. As of January 2019, 42 adaptation-focused projects are active (representing 45% of the total number of projects making up the GCF project portfolio). Two sectors stand out – agriculture and water – together with a smaller number of projects supporting the strengthening of climate information systems.

In terms of how climate resilience is understood, as was the case with the PPCR, the GCF does not appear to articulate a fund-level definition of climate resilience in its publicly-available documentation. However, it has invested considerable time in developing an adaptation performance measurement framework (although this has yet to be finalised). The length of time taken to determine how to measure project performance reflects the definitional ambiguity associated with climate resilience.

The GCF recognises four strategic results areas for climate-resilient investments, against which all project and programme investments are coded:

- Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions;
- Increased resilience of health and wellbeing, and food and water security;
- Increased resilience of infrastructure and the built environment to climate change threats;
- Improved resilience of ecosystems and ecosystem services.

A review of project classifications suggests that these categories are open to considerable interpretation by project developers, with, for example, interventions aiming to support vulnerable communities not being tagged under the first impact area. This suggests that further guidance on the use of these categories would be beneficial. There is also the larger question of how increased/improved resilience is understood by different stakeholder groups.

The 2018 GCF Secretariat paper 'Approach and scope for providing support to adaptation activities' proposed a three-step approach to demonstrate the climate rationale of any proposed adaptation project:<sup>13</sup>

1. Identifying the climate impacts the project aims to address;
2. Describing the prioritised interventions to address these impacts;
3. Relating the proposed interventions to a broader (national) policy framework.

<sup>13</sup> Green Climate Fund (2018). Approach and scope for providing support to adaptation activities. GCF/B.21/Inf.03 24 September 2018. Songdo: GCF.

The last criterion is noteworthy, as it explicitly addresses the connectivity between the local and national levels that this study aims to explore.

The proposed adaptation performance measurement framework has been designed to measure the results of GCF investments at the project, country and fund level. The first four proposed indicators reflect the four strategic impact areas, with the following outcome-based indicators:

- the number of people benefiting from: (i) the adoption of climate-resilient livelihood options and (ii) introduced health measures to respond to climate-sensitive diseases; (iii) the number and value of physical assets made more resilient; and (iv) the scale of ecosystems protected.

An additional two indicators are process-based, measuring:

- strengthened institutional and regulatory systems; and increased generation and use of climate information.

The remaining two proposed indicators suggest an impact orientation:

- strengthened adaptive capacity and reduced exposure to climate risks; and strengthened awareness of climate threats and risk-reduction processes.<sup>14</sup>

The considerable work that has gone into the development of the adaptation indicators of the GCF performance measurement framework highlights the enormity of the task to identify what constitutes strengthened climate resilience. In the context of national and sub-national climate funds, this suggests that an important early strategy is to secure consensus on the climate resilience objective(s) that each investment is aiming to work towards across all stakeholders involved in these actions, making clear the climate change response (e.g. through a theory of change, or ToC).

### 3.4 How is climate resilience defined and measured in the AF?

The AF supports activities that aim to adapt and increase climate resilience. It was established in 2001 and became operational in 2010 with its first project approval. Its focus is on 'concrete adaptation'. In its Operational Policies, the AF defines a concrete adaptation project/programme as:

a set of activities aimed at addressing the adverse impacts of and risks posed by climate change. The activities shall aim at producing *visible and tangible results on the ground by reducing vulnerability and increasing the adaptive capacity of human and natural systems to respond to the impacts of climate change, including climate variability.*<sup>15</sup> [Authors' italics]

<sup>14</sup> Green Climate Fund (2018). Update on the further development of some indicators in the performance measurement frameworks. GCF/B.20/Inf.01 28 May 2018. Songdo: GCF.

<sup>15</sup> Adaptation Fund (2017). Operational policies and guidelines for parties to access resources from the Adaptation Fund (amended in October 2017).

Eight eligibility criteria for accessing resources are detailed in the Strategic Priorities, Policies and Guidelines of the AF. These are all broadly stated and do not add further detail on what constitutes an adaptation action or strengthened resilience. However, the first criterion emphasises the importance of proposals being consistent with national sustainable development strategies, highlighting the connectivity between local-level action and national policy frameworks. The second criterion acknowledges the economic, social and environmental co-benefits of adaptation actions, reflecting an understanding of the broad impact of adaptation actions at the local level.

The AF Strategic Results Framework is developed around seven expected results and associated indicators.<sup>16</sup> The expected results follow the logic of output, outcome, impact and goal. Additionally, five core indicators assess performance against two impact-level results (Table 2).<sup>17</sup> All these indicators measure resilience indirectly, using proxy measures that the AF Board considers can be assessed by its implementing entities. They exemplify Roehrer and Kouadio's 2015 argument that the causal relationship between inputs and climate-resilient outcomes is highly uncertain.

**Table 2: AF core indicators**

IMPACT-LEVEL RESULTS	CORE INDICATORS
Increased adaptive capacity of communities to respond to the impacts of climate change	Number of beneficiaries (direct and indirect)
	Number of early warning systems
	Assets produced, developed, improved, or strengthened
	Increased income, or avoided decrease in income
Increased ecosystem resilience in response to climate change-induced stresses	Natural assets protected or rehabilitated

Source: Adaptation Fund (n.d.) Results tracker guidance document.

<sup>16</sup> Adaptation fund (n.d.) Results tracker guidance document: [www.adaptation-fund.org/wp-content/uploads/2017/12/AF-ResultstrackerGuidance-final2.pdf](http://www.adaptation-fund.org/wp-content/uploads/2017/12/AF-ResultstrackerGuidance-final2.pdf)

<sup>17</sup> Adaptation Fund (2014). Methodologies for reporting Adaptation Fund core impact indicators. Bonn: Adaptation Fund Board.

### 3.5 Lessons learned

The PPCR, GCF and AF demonstrate similar strategies when it comes to defining climate resilience by acknowledging it is a local, context-specific concept. Developing standardised eligibility and performance criteria across the different countries where these funds operate is therefore challenging, at least in going beyond very broad categories of measurement. This is reflected in the length of time it has taken to develop fund-level performance criteria. The experience of the PPCR would appear to offer an example of good practice for an international fund under such circumstances, where considerable fund resources have been dedicated to the development of country-led investment plans through multi-stakeholder engagement. This context-driven experience suggests that bringing funding decisions close to the intended beneficiaries and involving them in the decision-making process may offer an optimal strategy to drive effective climate-resilience investments.



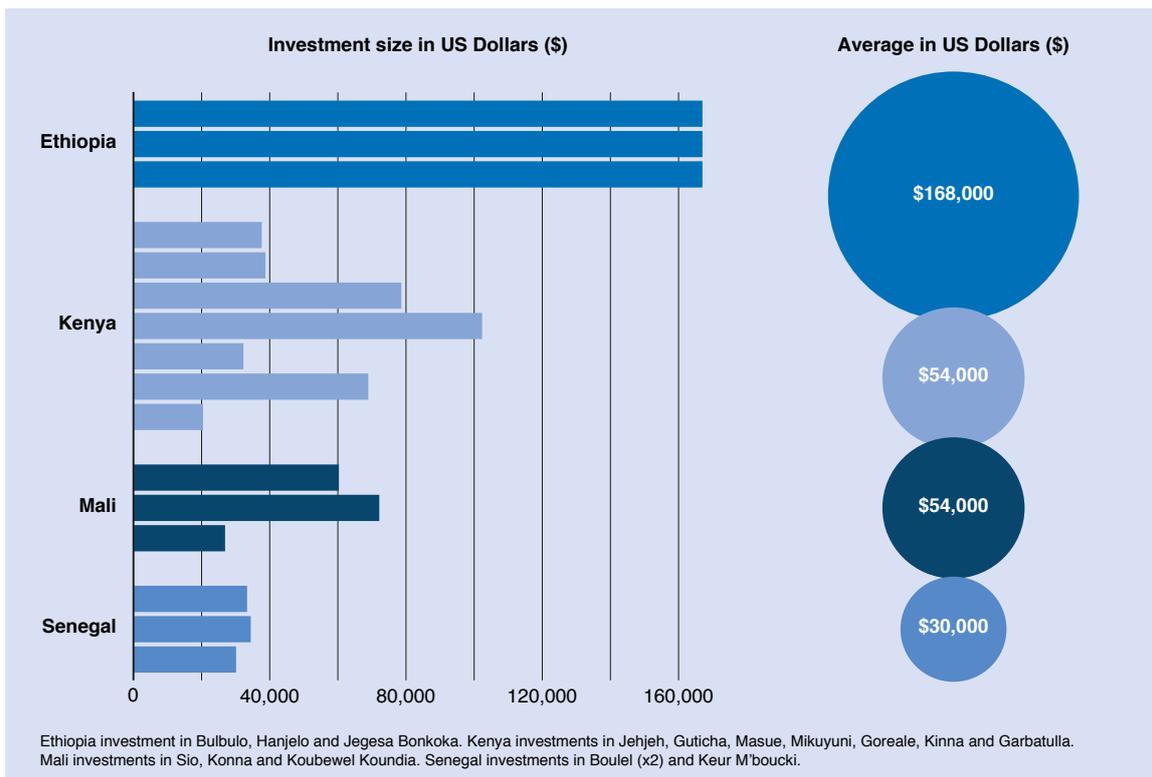
# 4. COUNTRY EXPERIENCES

Image: USAID

## 4.1 Country experiences in making climate-resilience investments

### The challenge of scaling up from pilot investments

Across the four countries studied, the level of funding of the climate-resilience investments reviewed is very small, with an average investment of approximately \$30,000 in Senegal, \$54,000 in Kenya and Mali, and \$168,000 in Ethiopia (all USD\$ – Figure 8). Whilst the investment size is five times greater in Ethiopia as compared to Senegal, these still represent micro-investments. Two issues are then apparent: how should such investments be managed to ensure the most effective use of public funds; and how can investments scale up to offer the prospect of reaching a significant number of beneficiaries?

**Figure 8: Size of climate-resilience investments reviewed (USD\$)**

Source: Ethiopia, Fast Track Investment (FTI). Kenya, ADA Consortium. Mali and Senegal, DCF Consortium.

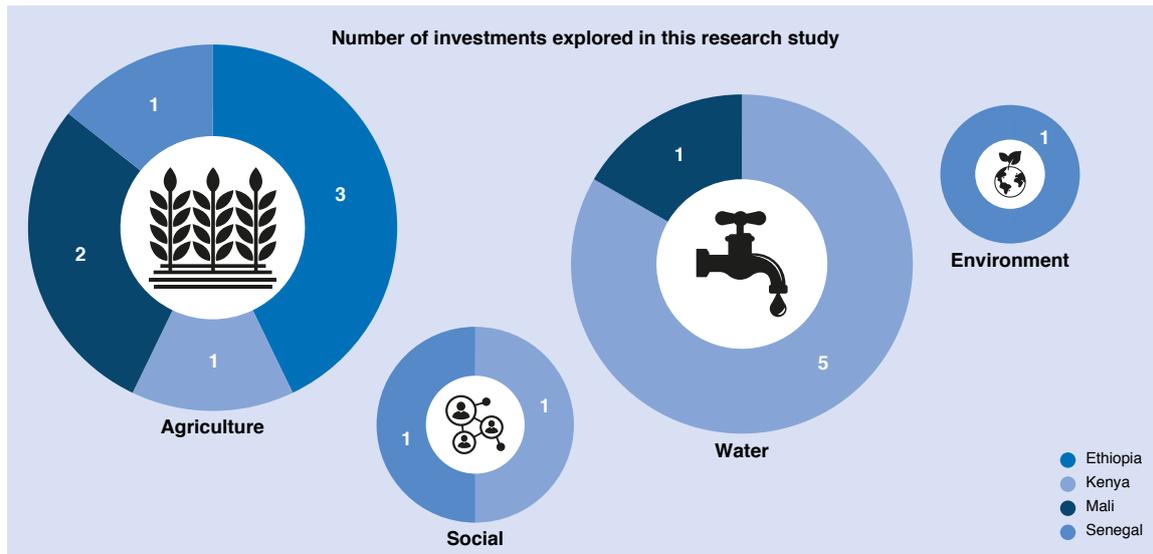
The integration of climate resilience funding into a country's public finance management (PFM) system would appear to offer the most opportunity of securing both of these goals. Moving beyond a pilot stage that uses international funding channels to a state where spending goes through the national PFM system would appear to be an early goal that needs to be secured – a lesson learned from the CRGE FTI project experience in Ethiopia and the DCF mechanism in Mali. However, any national PFM system will reflect the country's approach to administrative, political and fiscal decentralisation. In all four countries, decentralisation is evolving, with the creation of new administrative structures and legal reform taking place. This suggests that pilot programmes cannot stray too far from national norms in the way that their funding mechanisms are designed. Embedding the DCF mechanism in Senegal within the existing decentralised financing structure from the outset appears to be a strength of the DCF pilot in that country.

### Where should money be invested to strengthen climate resilience?

In the case studies, there is a distinction that appears between a national climate fund that takes a sector-based approach to investment and decentralised climate funds that adopt a beneficiary-driven approach. In the former, the funding mechanism aligns with the administrative structure of the government, utilising not only established funding channels but also tapping into sector-based expertise. The latter, on the other hand, capitalises on locally-determined needs

identified across the whole local economy, which leads to enhanced beneficiary ownership over investments. That is not to say that the decentralised system does not result in sector-based investments – it clearly does for climate vulnerable sectors such as agriculture and water management – but under this system, priority investments can be spread more broadly (something that could be further explored in future studies) (Figure 9).

**Figure 9: Sectoral spread of climate-resilience investments explored in this research**



Source: Authors of Overseas Development Institute (ODI).

## 4.2 How is climate resilience being defined and measured at the national and sub-national levels?

In **Ethiopia**, a definition of climate resilience at the national level exists: 'the ability to cope with, and manage the change brought about by weather stresses and shocks', where a climate-resilient economy is one that is protected against the negative impacts of extreme weather events and climate change so that the livelihood of the people and the economic growth prospects of the country are not damaged by such impacts. The pathway to achieve this includes:

1. increased income and more diverse livelihoods;
2. better healthcare and education;
3. better access to technology and agricultural inputs; and
4. greater social equity, particularly for women and marginalised groups.

The government also recognises the importance of mainstreaming climate risks into development planning, with agriculture, water, energy and forestry seen as priority sectors. The CRGE's experience in piloting investments has not further

disaggregated this definition of climate resilience. Whilst FTI aimed to build climate resilience, they appear to have been piloted with little guidance from the CRGE on what climate resilience means in operational terms.

In **Kenya**, the National Adaptation Plan and the Vision 2030 policy frame the building of climate resilience through contributions to economic growth, environmental sustainability and sustainable livelihoods. This is further disaggregated at the county level, where there is an understanding of the multi-faceted nature of climate resilience being addressed through the provision of sustained basic services (including health, water, education and livestock extension services). County Climate Change Fund (CCCF) investments that aim to build climate resilience are guided by theories of change, plus the CCCF finance mechanism has adopted a 9-step eligibility process, whose strength lies in capturing what climate resilience means at the individual level through participatory, community consultation processes.

In **Mali**, it is recognised at the national level that combating the threat of climate change means increasing the resilience of ecological systems, production systems and social systems to the effects of climate change through the integration of priority measures in the most vulnerable sectors. Five major themes have been identified: forest conservation, agricultural development, pastoral management, water management and the development of renewable energy systems with improved energy efficiency. So, even though climate resilience is not explicitly defined at the national level, there is an understanding of its multi-sectoral nature and a prioritisation of thematic interventions.

In **Senegal**, a definition of climate resilience was first explored by the National Adaptation Plan of Action (NAPA) drafting team, who conducted vulnerability assessments based on the IPCC definition of vulnerability to climate change. They subsequently identified adaptation investments for priority sectors. The country's Intended Nationally Determined Contribution (INDC) also recognised the multi-sectoral characteristic of climate resilience across agriculture, water resources, coastal, biodiversity, fishing, culture and health. The fact that the INDC documents long-term ambitions whereas the NAPA identified short-term adaptation investments, both reflecting their respective and different objectives from the start, sheds light on the importance of having consistent definitions across different reform efforts due to the complexities behind the definition of climate resilience and resulting practical implications.

In **Mali**, **Senegal** and **Kenya**, the definition of climate resilience for the DCF investments was built on baseline resilience assessments that captured local vulnerabilities to climate change. In **Mali** and **Senegal**, it also was based on the BRACED framing of climate resilience as an individual's ability to anticipate, avoid and adapt to the shocks and stresses they are likely to face in the foreseeable future. This allowed a depiction of what climate resilience means for the individual and, in turn, captured the practical implications of this definition through theories of change (although this did not necessarily involve analysis of climate and risk data).

Overall, **all four countries** demonstrate that the definition of climate resilience depends heavily on the local context. Each country has captured the essence of the IPCC definition of resilience to climate change as working in three key dimensions: economic, social and environmental. However, the risk of misinterpretation of any actor involved throughout the adaptation arena is heightened where the concept of climate resilience is used but not further disaggregated into proxy measures that can be readily communicated and assessed. For fast and flexible climate action, a common definitional understanding needs to extend to both the selection and success criteria of relevant investments. Success is best demonstrated by ensuring that the investments' theories of change align with local vulnerabilities to climate change, understanding these vulnerabilities for the individual. In turn, the language used to communicate and translate these vulnerabilities appropriately to relevant processes is key in reducing the risk of misinterpretation at different levels, and to ensure coherence from policy formulation to investment implementation.

## Lessons learned

National considerations:

- **Increased capacity of national and sub-national governments to address the complexities behind defining climate resilience** is necessary, distinguishing between (i) current vulnerabilities, (ii) exposure, and (iii) hazards to climate change; to improve understanding of future risks caused by climate change; and how uncertainty is inevitable. This would help ensure that, in the next phase of Nationally Determined Contribution (NDC) submissions, language is clear regarding the definition of climate resilience, reducing the risk of misinterpretation.
- **Ensure continuous climate adaptation mainstreaming** into national and sub-national policies, strategies, plans, programmes, projects and investments. Understanding changes to risks over time, especially those associated with local needs, is key for public engagement.

International considerations:

- **Clearer guidance on the language behind the conceptualisation of climate resilience** is needed to better understand climate change risks.
- **Promoting adaptation as a global public good** would entail ensuring coherence between different levels of governance. This needs to include transboundary climate risks across countries. International climate funds are well placed to learn and build capacity to address the implications of such risks.

### 4.3 What outcomes have been achieved from climate-finance investments, and what can be learned?

In **Ethiopia**, investment outcomes have addressed not only immediate local needs caused by current climate hazards, but have also delivered outcomes that increase the likelihood of benefits surfacing in the longer term, such as building institutional and beneficiary capacities. The results of the three FTIs show that beneficiaries were able to adopt new drought resistant crops, improve their access to natural resources, and benefitted from increased income through diversifying income-generating activities. Although job creation was one of the expected outcomes of the FTI projects, there is a need, however, to distinguish between jobs created during investment implementation from jobs created that are not dependent on the continuation of investment funding. This would allow for a more robust understanding of the effectiveness of such investments. Overall, securing the economic and environmental dimensions of climate resilience appears to have received greater attention than the social equity dimension, with the more vulnerable members of the affected communities receiving limited support during FTI implementation. In addition, planned investments related to risk monitoring and early warning systems, which might have delivered strengthened monitoring and reporting systems, have yet to be completed.

In **Kenya**, the seven CCCF investments all delivered their planned outcomes, guided by individual investment theories of change. The participatory approach taken in investment design and implementation enabled investments to effectively target the needs of the beneficiaries. There is evidence of investment attribution to building climate resilience, such as an increased awareness on how to manage natural resources under changing climatic conditions (especially water management during times of drought). However, other findings shed light on the importance of understanding the wider risks to such investments, and the need to account for multiple threats. An example of this came from Garissa County where the user-committee adapted to a large increase in the population drawing water from the borehole by enforcing strict controls for water use and prioritised pumping water for specific uses at designated times. This has had cascading impacts on the community. Additionally, investments that provide climate information across migrating routes for herders would require an understanding of the wider risks and the limitations of such investments in order to better tackle the issue of lack of financial support, such as community radio services informing pastoralist practices that extend far beyond the investment location.

Evidence from **Mali** shows that intended outcomes according to individual investment theories of change are being achieved, with a promising trajectory towards increased wellbeing and climate resilience. It is evident that identified investment activities meet short-term immediate needs, such as improved water supply or increased income generation. In addition, there is evidence that households have diversified income-generating activities to reduce their dependency on climate sensitive livelihoods. The social dimension of climate resilience has been addressed through the involvement of women and young people as members of the investment management committees, such as in Sio commune where, out of the 13 members, three are women and five are young people. Indirect benefits for women and young people are also evident in the DCF investment in Temba, through the reduction in the drudgery associated with water collection, providing women with more time to develop income-generating activities. However, due to the relative immaturity of investments (and a lack of programmatic follow-up at the investment level) there is a limit at present on assessing the contribution of investment outcomes to building climate resilience. The sustainability of these benefits will rely on the adaptive capacity of beneficiaries and local authorities over time to maintain the results of the investments.

The system-based interventions in **Senegal** were a key success of the DCF investments in delivering their intended outcomes. For example, in the commune of Boulel, cooperation between sports and cultural associations helped secure the delivery of a waste collection service, with households already reporting improved environmental outcomes. In Khende, better water management from the rehabilitation of a water pan has allowed for controlled water usage throughout the year. As in Mali, beneficiaries have been involved throughout the decision-making process, playing a key role in identifying investments that benefit the wider community. In addition, some of the investments have directly targeted vulnerable groups, for example in Khende with the development of market-gardening opportunities for women.

**Across all the investments reviewed**, findings show that it is important to ensure that the decision-making process mainstreams beneficiaries' perspectives through inclusive participatory processes. Capturing this in the development of theories of change (that include the perspective of vulnerable groups, e.g. of women and youth) has proven to be an effective decision-making tool. A key finding lies in also ensuring the maintenance of investments after implementation. In the DCF models in Kenya, Mali and Senegal this has been progressed by ensuring beneficiary buy-in and ownership of the investments, as well as securing technical support from their respective local authority services, thus emphasising the important relationship between not only the investment executing entities and the direct beneficiaries, but the decision-maker and direct beneficiaries.

## Lessons learned

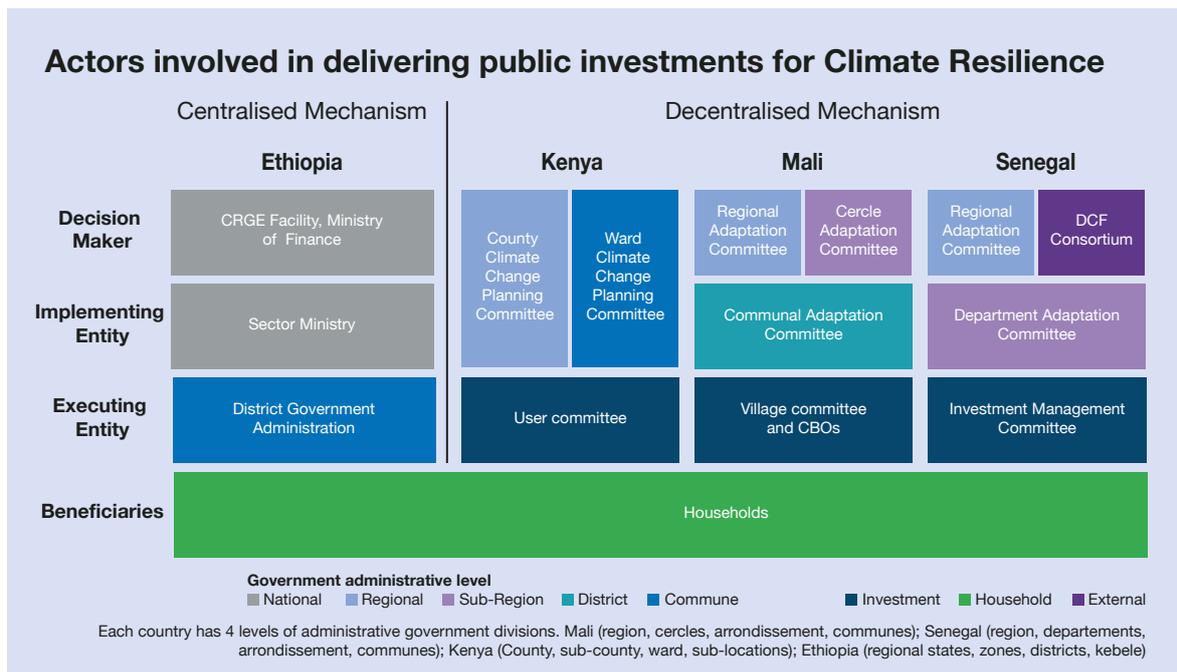
National considerations:

- Consideration should be given to **the integration of an iterative framework to identify adaptation strategies to promote decision-making that is 'risk-informed'**. This includes the acquisition of climate information to better understand current hazards and future risks, and therefore incorporate these considerations into investment design.
- **There is a need to close the feedback loop by ensuring reporting that flows through M&E systems from investments allows for continuous learning in building climate resilience.** Actions that aim to build climate resilience should have indicators representing the economic, environment and social dimensions of climate resilience.
- **System-based solutions are needed to stimulate and create an enabling environment** that spurs cooperation between government and all stakeholders.

International considerations:

- **Capacity-building is needed for country climate funds on investment design using economic appraisals**, as is the need for a common tool used to assess proposals. This would heighten the understanding of the wider risks of any selected portfolio of adaptation options, and promote an iterative approach to the selection of adaptation options that moves beyond 'low-regret' options.
- To better understand trajectories toward building climate resilience, **consideration should be given to expand VfM indicators for climate resilience** that include not only the '4 Es' (economy, efficiency, effectiveness and equity) but also scalability, sustainability, the potential for systemic change, and the relevance to local context.
- **Advance and showcase the success of M&E systems for climate adaptation**, such as the system used by the PPCR, and depict what is replicable or scalable. There is scope to broaden the learning of current efforts, including the investments explored in this study.

**Figure 10: Actors involved in delivering public investments for Climate Resilience**



Source: Authors of Overseas Development Institute (ODI).

#### 4.4 To what extent does the level of government involved in the investment decision-making process affect the outcomes of activities that aim to strengthen climate resilience?

In **Ethiopia**, the development of investment proposals was carried out by the Secretariat of the CRGE Facility, working with federal line ministries, with the roles of the implementing entity and the investment decision-maker clearly outlined in the CRGE Operations Manual. This nationally coordinated approach reflects the broader governance of the public administration of the country, which led to the standardised outcomes identified for all FTIs (and mirrored by the fact that all three sub-projects reviewed received equal funding). For the agricultural FTIs, the Ministry of Agriculture brought together its experts at the federal, regional and *woreda*<sup>18</sup> levels to discuss and identify the inputs required for each investment, representing a technocratically-led approach. Involvement of the direct beneficiaries was restricted to the selection of project sites for investment activities. One factor that contributed to driving this centralised approach was the speed by which international funding was to be disbursed, which increased pressure on project delivery within a very tight schedule. This resulted in a standardised approach for all FTIs, with very limited scope to tailor investment activities to local specificities.

<sup>18</sup> Ethiopia is administratively divided into regional states and chartered cities, zones, *woreda* (districts) and *kebele* (wards).

The governance of the CCCFs in **Kenya** contrasts markedly with that of Ethiopia. Here, investment choices were designed to ensure strong community participation in the process of developing and prioritising investments that build climate resilience. Committees at the lowest tier of decentralisation, wards, used participatory planning tools, such as resilience assessments and resource mapping (in Wajir, Garissa and Isiolo) or participatory vulnerability and capacity assessments (in Makueni and Kitui), with the communities to identify their own climate risks and priorities, which were then used by the ward committees to develop project proposals. Prioritised investments were subsequently submitted to county climate change planning committees for validation, but critically not for further approval, as long as a number of strategic investment criteria were met. The CCCF thus challenges business-as-usual models in seeking to operationalise the principle of subsidiarity and devolve decision-making powers to the lowest tier of government administration. There is some overlap between the ward and the county committees with regard to the implementing entity role, as both hold responsibilities in identifying, preparing, and appraising investment proposals, and then in supervising and evaluating the investments. However, this institutional overlap did not appear to create any confusion for the investments reviewed.

The DCF mechanism in **Mali** follows a similar governance model to that of Kenya. There are, however, some differences, one of which being the Regional Adaptation Committee in Mali has a decision-making role in the final investment selection. Still, this rests on the earlier validation of proposals at each tier of the decentralisation system (at both *cercle* and *commune*) and reflects proposal selection first made at the *commune* level through community consultations. For *commune*-level investments, the Communal Adaptation Committee (CCA) coordinates, prioritises, selects and plans investments, conducts community outreach, monitors the progress of investments and supports the management of investment execution. The oversight and sign-off of each *commune* investment then cascades upwards through to the respective *cercle* and regional committees. This has ensured that funding decisions are made in conformity with the decentralisation structures of the country.

In **Senegal**, the DCF mechanism follows a similar structure to that of Mali. However, the pivotal committee in Senegal, the Department Adaptation Committee operates at a higher tier of the country's public administration, the *département* (department). Otherwise, the governance arrangements follow the same pattern. Funding decisions are made through the country's decentralisation structures, through the national public accounts regime and a partnership agreement with the *Programme National de Développement Local* (PNDL). This agreement allows for project funds to be managed as part of the PNDL's funding arrangements for local communities.

**Overall**, the DCF mechanism developed in Kenya, Mali and Senegal, represents a very different approach to climate finance delivery in Ethiopia. Whilst, early outcomes of both centralised and decentralised models suggest a trajectory towards improved climate resilience of investment beneficiaries, the main difference lies in the way beneficiaries have been brought into the investment design phase in an explicit way and have a voice over investment selection under the DCF model.

An emerging challenge in all four countries, regardless of the climate finance mechanism, concerns the M&E of investments. M&E components of investments are reported to be often under-budgeted and are therefore not sufficient to cover the monitoring of all investments. This deficit in reporting on performance perhaps reflects a more general shortfall in the reporting of public investments in each country, where results-based management systems are in their infancy.

## Lessons learned

National considerations:

- **The institutional structure of all climate finance mechanisms needs to be clear with respect to the roles and responsibilities of component actors.** Legal mandates are necessary to ensure effective coordination and championing of climate resilience.
- **National budgetary support for sub-national actions is required for sustained action,** which can help leverage further international finance. This places a high premium on ensuring accountability of spending, and complete transparency by all actors involved.

International considerations:

- **International funding sources should acknowledge the decentralisation structures in countries where support is provided** and ensure, as far as possible, that climate finance flows support such structures. There is potential synergy to be sought by aligning with long-standing international support for decentralisation processes.
- **International partners can support risk management** associated with the policy, reporting and financial flows of climate-resilient investments, and offer technical assistance on how to make such investments more risk-informed.

## 4.5 Are DCF investments building climate resilience, and how do they differ from more centralised approaches?

The three preceding questions collectively aimed to address the study's leading question of whether investments funded by DCF are building climate resilience and document how they differ from more centralised approaches.

The CRGE Facility in Ethiopia, the one centralised approach reviewed, demonstrated that its investments have led to early successes in watershed rehabilitation and land conservation, improving crop and livestock productivity and thus building the climate resilience of the project beneficiaries. It was also observed that there is a strong sense of commitment among beneficiaries to sustain the outcomes of the investments. So, overall, these investments are effecting change.

Similar outcomes, across a broader range of interventions, are documented from the DCF mechanisms in Kenya, Mali and Senegal, with findings suggesting that these investments are having positive impacts in terms of strengthening household welfare and increasing climate resilience. The key difference, as described above, lies in how these mechanisms are promoting the principle of subsidiarity, allocating decision-making at multiple levels, and promoting community participation. This strategy has led to a strong sense of community ownership over the investments reviewed. Such an approach appears to have led to the development and implementation of investments that better reflect communities' needs and priorities, as compared to previous development interventions. Whether they also are more effective in building climate resilience is as yet unproven and, as such, is an area for continuing monitoring, evaluation and learning.

Ensuring the long-term success and sustainability of all grant-funded investments that follow each country's definition of climate resilience remains a challenge because of the wider policy and development context within which they occur, which remains highly challenging in all four countries reviewed, regardless of the climate finance mechanism deployed. In addition, there is little to discern between the two approaches as to how they will scale up their pilot experiences so that such actions can be replicated at a national scale. One insight that this study has to offer is that the effective delivery of climate grant finance to local communities will depend on the national administrative structures through which decentralisation is delivered. The DCF approach should therefore not be characterised as working solely at the sub-national level but, rather, critically dependent on the national architecture that supports it.

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## Annex 1. Early outcomes of climate finance in Ethiopia: experiences from the agricultural sector FTI projects<sup>19</sup>

### A1.1 Introduction

Climate variability and extreme weather events have caused significant damage to life, property, natural resources and the economy of Ethiopia, with at least five major droughts since the early 1970s. Such weather extremes are expected to become more pronounced and frequent due to global warming (Robinson et al., 2013). The Ethiopian economy depends heavily on agricultural production, which contributes over 41% of GDP, 83% of exports and 85% of employment. However, the sector is highly vulnerable to climate change.

Reducing vulnerability to the impacts of climate change and building resilience against future risks and shocks has become a priority policy agenda. The national CRGE strategy was developed in 2011 to respond to the impacts of climate change. The CRGE strategy follows a sectoral approach, with six ministries implementing climate-related public investments. The strategy is composed of two components, the green economy strategy and the climate resilience strategy. The latter component builds on previous climate change activities and plans including the National Adaptation Programme of Action (NAPA) and Ethiopia's Programme of Adaptation to Climate Change (EPACC). The focus of the climate resilience strategy is on the agricultural, land-use and forestry sectors, with the integration of climate resilience and adaptation objectives into sectoral and regional plans among the priority activities. According to the Climate Funds Update website,<sup>20</sup> between 2003 and April 2015, Ethiopia received approval for just over \$ 91 million in climate finance from multilateral climate funds, of which \$28 million was allocated to adaptation projects and programmes (Echeverria and Terton, 2016).

The CRGE strategy draws heavily from, and is aligned to, the country's five-year development plan, the Growth and Transformation Plan (GTPII). Integration of the CRGE strategy with GTPII has helped secure financial resources from the national budget to support the implementation, coordination, M&E of climate investments. The Ethiopian government has also used its first Nationally Determined Contribution to the UNFCCC as a mechanism to integrate adaptation into development activities, using a process that involves affected populations and the most vulnerable groups of society such as women, children, the elderly, and those who are environmental refugees.

<sup>19</sup> This is a shortened version of a country case study for Ethiopia written by Aklilu Amsalu.

<sup>20</sup> <https://climatefundsupdate.org/>

Following the adoption of the CRGE strategy, an institutional architecture has been created to drive the strategy's implementation and promote the participation of a broad set of stakeholders. The CRGE Facility has been established within the Ministry of Finance, which serves as the national financial mechanism to mobilise and distribute funding in support of the development and implementation of CRGE investment plans. Investment plans funded by the CRGE Facility are implemented by federal line ministries, who are mandated to supervise the execution of the projects at the sub-national level.<sup>21</sup> There is no restriction on executing entities other than they must meet the standards and rules of the CRGE Facility, as described in its Operational Manual.

The Ethiopian government has shown strong political commitment and ownership over the CRGE strategy. The Prime Minister's Office has taken the lead and the commitment extends to the sector ministries and regional states in supporting and facilitating the strategy's successful implementation. The key success factors considered in pushing forward the strategy into action include political commitment and continuous government support, establishment of a dedicated financial mechanism to coordinate the flow of funds (the CRGE Facility), mechanisms and targets to translate the goals of the strategy into action, and identification of FTI projects for implementation. The performance of three FTI projects is the subject of this case study.

### **A1.2 Study objectives and selection of FTI projects**

This study aims to explore whether the investment grants funded by the CRGE Facility have contributed to a reduction of vulnerability and strengthened climate resilience of the investments' beneficiaries. Specifically, the study addresses the following three questions:

1. How is climate resilience being defined and measured at the national and sub-national levels?
2. What outcomes have been achieved, and what lessons can be learned?
3. To what extent does the level of government involved in the investment decision-making process affect the outcomes that aim to strengthen climate resilience?

The study focused on the FTI projects that were financed by the CRGE Facility soon after its establishment. Between 2014 and 2017, 43 FTI projects were implemented across six priority sector ministries, including the Ministry of Agriculture (MoA). Agricultural sector FTI projects were piloted in nine of Ethiopia's regional states to promote climate-smart agriculture (CSA) practices, with the overarching goal of contributing to poverty reduction, sustainable development, and a climate-resilient green economy. Three agricultural sub-projects were selected for this study, recognising the importance of agriculture to the Ethiopian economy (Table A1.1).

<sup>21</sup> Ethiopia is administratively divided into regional states and chartered cities, zones, *woreda* (districts) and *kebele* (wards).

**Table A1.1: Description of selected CRGE FTI sub-projects for the study**

SITE AND REGION	DECISION-MAKERS	IMPLEMENTING ENTITIES	EXECUTING ENTITIES	NUMBER OF BENEFICIARY HOUSEHOLDS	
				MALE-HEAD	FEMALE-HEAD
<b>Bulbulo watershed, Akaki Woreda, Oromia Region</b>	CRGE Facility's Management Team (Ministry of Finance; Ministry of Environment and Forest)	Ministry of Agriculture Oromia Region Bureau of Agriculture	Akaki Woreda office of Agriculture; Akaki Woreda Administration; Akaki Woreda CRGE focal unit; Akaki Woreda Finance Office	112	38
<b>Hanjelo watershed, Doyogana Woreda, Kembata Tembaro Zone (SNNPR)</b>	CRGE Facility's Management Team (Ministry of Finance; Ministry of Environment and Forest)	Ministry of Agriculture SNNPR Bureau of Agriculture	Doyogana Woreda office of Agriculture; Doyogana Woreda Administration; Doyogana Woreda CRGE focal unit; Doyogana Woreda Finance Office	132	18
<b>Jegesa Bonkoka watershed, Dara Woreda, Sidama Zone (SNNPR)</b>	CRGE Facility's Management Team (Ministry of Finance; Ministry of Environment and Forest)	Ministry of Agriculture SNNPR Bureau of Agriculture	Dara Woreda office of Agriculture; Dara Woreda Administration; Dara Woreda CRGE focal unit; Dara Woreda Finance Office	83	17

Source: Government of Ethiopia Fast Track Investments (FTIs).

These three sub-projects were small-scale investments (\$168,400 per investment) intended to rehabilitate degraded watersheds, with a relatively small number of direct beneficiaries. Although the study narrowly focuses on these investments, the objective was to undertake a broader level investigation of the implementation practices and impacts on the ground to draw out relevant lessons.

The methodology involved field data collection in the three case study FTI sub-projects (interviews and discussions with project beneficiaries, local government administrations, and members of the watershed committees);<sup>22</sup> a review of relevant documents (investment proposals, M&E reports, and end-of-project reviews); and interviews with experts and officials from the relevant line ministries. The VfM framework was used to guide both data collection and analysis of the results related to the achievement of each project investment.

<sup>22</sup> Watershed committees are made up of 12 members (three of whom are women). They are elected from the local community that lives within the watershed area. The committee is responsible for the management of the watershed area, which includes watershed development, conservation of watershed resources, instituting by-laws to govern the implementation of agreed actions, and making resource-use decisions over such resources as grass and timber.

### LIMITATIONS OF THE STUDY

The study mainly used qualitative data to analyse the delivery of climate finance at the level of investments on the ground. While detailed interviews and discussions with a range of actors were held, quantitative data from documents and reports were found to be of poor quality, lacking detail. This made it difficult to undertake any financial analysis, as data on the costs of inputs for most of the investment activities were not available. In addition, project documents obtained from executing entities were poorly organised and did not contain details of project activities. The consequence of these limitations was that whilst the effectiveness and equity indicators of the VfM framework could be analysed, it was not possible to fully explore the efficiency and economy of the FTIs.

The FTI projects were all completed in 2016, allowing for project outcomes to be discerned. However, some key officials who had coordinated the projects had since left (there is high staff turnover in woreda administrations), which constrained access to project documents and the opportunity to capture details regarding the implementation of sub-project activities.

### A1.3 Defining climate resilience

At the outset of the CRGE strategy, emphasis was given to the green economy component of the strategy. In the CRGE vision document, climate resilience is defined as 'the ability to cope with, and manage the change brought about by weather stresses and shocks' (EPA, no-date: 7). According to this vision, a climate-resilient economy is one that is protected against the negative impacts of extreme weather events and climate change, so that the wellbeing of the people and the economic growth and prospects of the country are not damaged by such impacts. Importantly, the vision highlights that the key route to climate resilience is through:

- increased income and more diverse livelihoods;
- better healthcare and education;
- better access to technology and agricultural inputs; and
- greater social equity, particularly for women and marginalised groups.

These attributes can therefore be considered as proxy indicators of strengthened climate resilience. In addition, the Ethiopian government recognises that adaptation is neither a one-off intervention nor a stand-alone activity but, rather, an iterative process that needs to be mainstreamed into development planning, including the design and implementation of projects and programmes across the relevant sectors (MEF, 2015). Identification of the following priority sectors has been made: agriculture, water, energy and forestry. These sectors are considered relevant to leveraging the country's ambitions of building a climate-resilient green economy, and hence are eligible for climate finance through the CRGE Facility.

Eligibility criteria for climate-resilience projects are not documented in the CRGE Facility's Operations Manual beyond stating that projects will be assessed in terms of 'reducing vulnerability and building climate resilience – again framed using a practical basket of indicators and evidence' (page 94). The 'practical basket of indicators' is not further described. Nor are ex-post investment success criteria listed in terms of strengthened climate resilience (such as indicative milestones based on the four proxy indicators of strengthened resilience mentioned above). Hence, whilst the CRGE Facility has an overarching national definition of climate resilience, this definition does not appear to have yet resulted in an explicit, documented set of investment or performance criteria for the climate-resilience investments made by the CRGE Facility. In the absence of these definitions distinguishing between climate-resilience investments and 'business-as-usual' development investments is constrained.

## A1.4 Documenting project outcomes

This section analyses how the three selected FTI projects met their intended objectives of strengthening the climate resilience of project beneficiaries, focusing on the outcomes achieved through each investment and the lessons learned using the VfM framework.

### A1.4.1 AKAKI WOREDA

#### DESCRIPTION OF THE INVESTMENT AND OUTCOMES

The Akaki Woreda is one of 180 woredas in the Oromia Regional State. The main livelihood is agriculture, characterised by mixed crop and livestock production. The FTI at the Akaki Woreda was a watershed restoration project. Prior to the investment, overgrazing had resulted in the development of large gullies in both the upper and lower parts of the watershed. Flooding caused by high water runoff from the hillsides was a serious problem, with flash floods having led to the destruction of settlements and cultivated areas, thus threatening the life and livelihoods of the people living in the watershed. The Akaki Woreda office of Agriculture (WoA) was the executing entity for this project. As indicated in the standard logframe for agricultural sector FTI projects, five key outputs were identified nationally that were expected to lead to a strengthened local climate-resilient green economy (Table 4).

Activities were identified and determined during a consultative meeting, which brought together experts from the federal, regional and local agricultural departments. The local agricultural departments were requested to identify specific activities and implementation protocols together with the local communities. The *kebele* administration and members of the watershed committee representing the local community were actively involved in this process, in so far as determining the location of the watershed to be rehabilitated and in identifying the direct beneficiaries of the investment.<sup>23</sup> The results achieved are summarised in Table A1.2.

<sup>23</sup> Interview and discussion with the *kebele* administrators and members of the watershed committee.

**Table A1.2: Summary of FTI project outputs and results achieved in the Akaki Woreda**

OUTPUT	RESULTS ACHIEVED
<b>Institutional capacity built</b>	<ul style="list-style-type: none"> <li>• Local communities were trained, and awareness was created on the benefits of climate-smart agricultural practices</li> <li>• The woreda office was equipped with office supplies, and a CRGE focal person assigned</li> <li>• A baseline survey was conducted and used for the intervention</li> </ul>
<b>Crop productivity increased</b>	<ul style="list-style-type: none"> <li>• Widespread adoption of improved wheat and chickpea varieties</li> <li>• Increased crop productivity due to composting and use of improved crop management practices</li> </ul>
<b>Improved and low GHG emitting livestock production</b>	<ul style="list-style-type: none"> <li>• Six Households benefited from improved livestock breeds</li> <li>• 90 households benefited from improved poultry breeds</li> <li>• 72 youths were organised in four cooperatives and benefited from modern beehives</li> </ul>
<b>Productive land conserved and degraded land rehabilitated</b>	<ul style="list-style-type: none"> <li>• Rehabilitated watershed using various conservation measures</li> <li>• Gully control and reduced watershed degradation</li> <li>• Improved availability of livestock fodder, mainly grasses</li> </ul>
<b>Resilience of farm and pastoral households increased</b>	<ul style="list-style-type: none"> <li>• Increased crop productivity due to use of improved crop varieties</li> <li>• The risk of flooding damages on crop land and settlements considerably reduced</li> <li>• Minimised gullying of cropland and associated productivity loss</li> <li>• Risk management capacity of local communities enhanced</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

### EFFECTIVENESS

The FTI project in the Akaki Woreda has rehabilitated the watershed through various conservation measures. The watershed was closed to human interference to allow rehabilitation and natural regeneration. According to interviewed farmers, the watershed is now restored and has been further developed through the planting of grasses and trees. The rehabilitation of the watershed has reduced water run-off that had previously been damaging crop lands. Interviewed farmers and woreda experts also describe how project outputs have motivated the local community with increased enthusiasm to deal with their challenges.

Job creation was one of the expected outcomes of FTI projects. This objective in the Akaki Woreda focused on creating opportunities for young people, with two new livelihood options created by the FTI. First, income from the collection and sale of grass obtained from the enclosures can now be obtained, and second, through the sale of honey from investments made in the provision of modern bee hives.

**EQUITY**

The selection of project beneficiaries was carried out by the WoA together with the kebele administration, watershed committee and community representatives. The total number of households in the watershed was 222, from which 150 beneficiary households were selected. All female-headed households in the watershed were included in the project and benefited from the provision of improved poultry breeds. Women also benefited from participating in paid labour works and were supplied with improved stoves to increase energy use efficiency. Vegetable seed for backyard farming was also distributed to female-headed households. These actions are reported to have helped improve the livelihood opportunities for women, who are among the most vulnerable members of the communities living in the watershed.

**STRENGTHENED CLIMATE RESILIENCE**

There is evidence that the FTI in the Akaki Woreda has increased the climate resilience of the main beneficiaries using the proxy indicators of the CRGE: through increased and more diverse livelihoods; access to improved agricultural inputs; and greater social equity through the empowerment of women. In addition, the risk management capacity of both the woreda agricultural department and local communities has been enhanced to face further climate-induced change associated with floods and land productivity losses. Specifically, local communities have acquired experience in planning and implementation of investments against climate change-related risks. The rehabilitation of a degraded watershed, with the reduced risk of flooding and productivity loss has inspired the local administration and community to maintain the investments and replicate these actions in other degraded watersheds of the area.

**A1.4.2 DOYOGENA WOREDA****DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The Doyogena Woreda is found within the Kembata Tembaro zone of the SNNPR.<sup>24</sup> The main source of livelihood for the people in this woreda is small-scale mixed crop and livestock production (MoA, 2015). The FTI at Doyogena was also a watershed restoration project. The Hanjelo watershed had suffered from land degradation, making the area prone to the risk of flash floods. The area is also vulnerable to droughts. Rainfall shortage is the main cause of crop failure and loss of agricultural production in the area.

The aim of the FTI project was to implement a range of climate-smart agricultural practices to reduce vulnerability and build resilience. The outputs of the FTI project in Doyogena were the same as the outputs for FTI projects in other woredas, with five key outputs expected to build a climate-resilient green economy in the area. These outputs had been identified by the Natural Resource Directorate of the Ministry of Agriculture, together with experts from the Regional Bureau of Agriculture (BoA) and the WoA. According to the woreda CRGE focal person, the woreda received a template from the MoA with predefined outputs and was requested to detail the activities appropriate to local conditions by involving the local communities. The results achieved are summarised in Table A1.3.

<sup>24</sup> SNNPR (Southern Nations, Nationalities and Peoples Region) is one of the nine regional states in Ethiopia.

**EFFECTIVENESS**

The watershed has been rehabilitated through various types of conservation measures, both on crop lands and on the degraded hillside. By training farmers and supporting them to strengthen the watershed committee, the project managed to remove livestock grazing from the watershed. As mentioned by interviewed farmers, free grazing of livestock had been a common practice before the FTI project. As the available grazing area was not sufficient, most farmers had also fed their livestock with the leaves and stems of enset, a staple food of the area. This had represented a serious challenge to household food security. Interventions of the FTI project increased the availability of grass fodder by demonstrating the benefits of investing in grass strips to support livestock production in crop areas. The project also distributed drought resistant maize and haricot bean varieties to 150 households. As the area is prone to rainfall shortage, the cultivation of drought resistant crops varieties makes a significant contribution to reducing household vulnerability to food shortage.

The promotion of vegetable farming was accompanied by investing in hand-dug water wells. Beneficiaries of the water wells now use the water for vegetable cultivation, which has become an important source of cash for households. An interviewed vegetable farmer indicated that he earns approximately 10,000 Birr (\$440) from the sale of cabbage and tomatoes every year.

**Table A1.3: Summary of FTI project outputs and results achieved in the Doyogena Woreda**

OUTPUT	RESULTS ACHIEVED
<b>Institutional capacity built</b>	<ul style="list-style-type: none"> <li>• Local communities were trained, and awareness was created on the benefits of climate-smart agricultural practices</li> <li>• The woreda office was equipped with office supplies, and a CRGE focal person assigned</li> <li>• A baseline survey was conducted and used to plan the intervention</li> </ul>
<b>Crop productivity increased</b>	<ul style="list-style-type: none"> <li>• Well-developed grass strips on crop land were established</li> <li>• Increased supply of grasses for livestock feed and reduced grazing of livestock on crop land and open areas was secured</li> <li>• Feeding livestock the leaves and stems of enset was replaced by grass fodder</li> <li>• Farmers benefited from the cultivation of introduced vegetables, which have become an important source of household income</li> </ul>
<b>Improved and low GHG emitting livestock production</b>	<ul style="list-style-type: none"> <li>• Improved breed of cattle distributed to households increased milk production and contributed to reducing the number of livestock</li> <li>• Improved access to water for livestock as a result of investments in hand-dug water wells</li> </ul>
<b>Productive land conserved and degraded land rehabilitated</b>	<ul style="list-style-type: none"> <li>• Rehabilitation of a degraded watershed using various conservation measures</li> <li>• A nursery to supply tree and grass seedlings was established</li> <li>• Improved supply of grass for livestock from the rehabilitated watershed</li> <li>• Gully rehabilitation and further erosion of the watershed reduced</li> <li>• Reappearance of lost water springs</li> </ul>
<b>Resilience of farm and pastoral households increased</b>	<ul style="list-style-type: none"> <li>• Improved water availability for vegetable farming</li> <li>• Widespread cultivation of drought resistant crop varieties</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

**EQUITY**

In Doyogena, equity considerations were not part of the delivery of the FTI project. Rather, the selection of project beneficiaries was carried out based on the perceived effectiveness of households to deliver the intended outputs and their willingness to participate in the project. The poverty level of households was not considered in identifying beneficiaries. Of the 403 households within the watershed, 150 beneficiary households were selected (20 of these were female-headed households). The selection of beneficiaries was carried out by the executing entity together with the woreda administration, the kebele administration and the watershed committee.

**STRENGTHENED CLIMATE RESILIENCE**

The climate resilience of farm and pastoralist households, as measured using the CRGE proxy indicators, has been strengthened as a result of the FTI project through increased beneficiary income and more diverse livelihoods, and improved access to agricultural inputs. However, the social equity dimension of climate resilience has not been strengthened as a result of this FTI project.

**A1.4.3 DARA WOREDA****DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The third FTI agricultural sector sub-project studied was implemented in the Jegesa Bonkoka watershed within the Dara Woreda of the Sidama zone of the SNNPR. The main challenge to livelihoods in the area is water scarcity due to unreliable rainfall and the risk of flooding on crop lands due to watershed degradation. As water scarcity and soil degradation were the main causes of poor crop productivity, the intervention aimed to rehabilitate the watershed and invest in productive agricultural assets. As before, the identification of specific activities was guided by a national template prepared by the MoA, with selection and prioritisation of activities carried out by the WoA together with the local community. Community representatives, members of the watershed committee and the kebele administration were involved in the selection of the watershed area and in the identification of activities for the investment. The project outputs and the results achieved are summarised in Table A1.4.

**Table A1.4: Summary of FTI project outputs and results achieved in the Dara Woreda**

OUTPUT	RESULTS ACHIEVED
<b>Institutional capacity built</b>	<ul style="list-style-type: none"> <li>• Local communities were trained, and awareness was created on the benefits of climate-smart agricultural practices</li> <li>• The woreda office was equipped with office supplies and a CRGE focal person assigned</li> <li>• A baseline survey conducted and used to plan the intervention</li> </ul>
<b>Crop productivity increased</b>	<ul style="list-style-type: none"> <li>• Enhanced use of compost for maize and enset cultivation</li> <li>• Water storage techniques adopted</li> <li>• Improved maize varieties and coffee seedlings distributed to beneficiary farmers</li> </ul>
<b>Improved and low GHG emitting livestock production</b>	<ul style="list-style-type: none"> <li>• A livestock enclosure was constructed for vaccinating livestock</li> <li>• 55 modern beehives were distributed to beneficiaries</li> <li>• Improved poultry breeds were distributed</li> </ul>
<b>Productive land conserved and degraded land rehabilitated</b>	<ul style="list-style-type: none"> <li>• Enclosure and rehabilitation of the hillside of the watershed</li> <li>• Reduced soil erosion and reduced flooding risks</li> <li>• Regeneration of the vegetation</li> <li>• Increased availability of grass fodder and tree cover within the watershed</li> </ul>
<b>Resilience of farm and pastoral households increased</b>	<ul style="list-style-type: none"> <li>• Widespread use of drought resistant/short maturing crop varieties</li> <li>• Improved water availability from constructed community ponds</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

#### **EFFECTIVENESS**

The land rehabilitation component of the FTI project focused on investing in soil and water conservation structures, and tree planting on the hillsides of the watershed. The investments were accompanied by the enclosure of the watershed from human and livestock interference. This led to the regeneration of grasses and different plant species, which have become an important source of fodder for livestock. Livestock fodder is now available for the local community, including for those households who were not direct beneficiaries of the project. In addition, the conservation of the watershed has reduced land degradation and the risk of flooding.

The FTI project trained households on compost preparation and use. The main crops for which compost is used are maize and enset. The use of compost encouraged many farmers to intensify enset cultivation, the productivity of which had been declining. Enset now provides beneficiary households with the capacity to increase household food security.

**EQUITY**

There is no evidence that the FTI led to greater social equity, particularly for women and marginalised groups. Rather, households belonging to the middle wealth category were the target beneficiaries of the project, as these households were perceived to have the capacity and commitment to undertake the investments. Criteria used to identify middle wealth category households included house and cattle ownership, as well as households who were already meeting their minimum food requirements. The selection of beneficiaries for the FTI project in the Dara Woreda was carried out by experts from the WoA, community representatives and members of the watershed committee.

**STRENGTHENED CLIMATE RESILIENCE**

The widespread use of drought resistant/short-maturing crop varieties, together with the investments in water storage and a more secure water supply is considered to have increased the climate resilience of the beneficiaries, at least over the short-term. However, the sustainability of benefits obtained from these investments is uncertain given the changing patterns of the local climate.

**A1.5 The governance of delivering climate finance**

This section analyses the design of the agricultural FTI sub-projects, in terms of the roles played by different actors in the development of project concept notes and, in particular, explores the role of the national and sub-national government administrations in guiding the FTI projects.

**THE DEVELOPMENT OF INVESTMENT PROPOSALS**

The CRGE Facility developed national technical guidelines for the preparation of FTI projects in its 2013 Operating Manual. These guidelines contain detailed procedures related to the preparation of investment plans together with a template to guide the preparation of investment proposals. The CRGE-relevant sector ministries were given one month to mobilise executing entities, identify areas for investment, and prepare a FTI project. Although there was no official communication regarding a focus on the reduction of GHG emissions, mitigation actions in key sectors such as agriculture, forests and energy (considered to have high abatement potential) were prioritised.<sup>25</sup> The resilience component of the CRGE lagged behind, in part because of its definitional ambiguity, although mitigation-related actions were acknowledged to have adaptation co-benefits.

The call for proposals had clear instructions for implementing entities to mobilise their respective executing entities to develop feasible investment plans. Accordingly, the sector ministries were expected to provide guidance to executing entities on the identification of areas of intervention for FTI projects. In the agricultural sector, the initiative to develop the FTI projects came entirely from the MoA. The MoA's Natural Resources Management Directorate was behind the selection of specific woredas to undertake the pilot project, considering a number of criteria including the potential for effective implementation of project activities and the likelihood of generating successful lessons so as to secure further financial resources from the CRGE Facility.

<sup>25</sup> Interview with a decision-maker at the Commission for Environment, Forest and Climate Change.

The MoA held a meeting with a national consultancy firm, NGOs and development partners to discuss proposals. The decision on the selection of the implementing woredas was based on the size of the regions, the amount of funding available for FTI projects, and representation of different livelihood systems (pastoral and crop farming livelihoods). The CRGE Facility had already indicated a budget ceiling for the FTI projects, so proposals were therefore prepared considering the set budget limit. Although the MoA was initially given a month-long timeframe to prepare its proposal, this was too short a time to come up with a well thought-out concept note that involved the participation of local government administrations and communities.<sup>26</sup> Discussion on the draft proposal was limited to the participation of representatives from the BoA, who were requested to provide feedback and a regional perspective on the proposal. The MoA FTI project proposal was eventually finalised in 10 weeks. A review of the proposals was then carried out by the CRGE Facility Secretariat in the presence of the implementing line ministries.

### **EFFECTIVENESS**

National attention was given to the effective implementation of FTI projects since these were considered showcase projects. This was evidenced by the high level of political and institutional commitment to these projects at all levels of decision-making and implementation, including from the Prime Minister's Office.

The effectiveness of the FTI projects depends on their outputs. All three projects studied were expected to reduce vulnerability and build the climate resilience of local communities through a range of interventions. The MoA brought together its experts at the federal, regional and woreda levels to discuss and identify the inputs required for the investment. In addition, the MoA engaged a technical consultancy firm to advise on the preparation of the project proposal (including the development of the project logframe). The consultancy firm was also contracted to conduct a baseline survey in the target woredas before implementation of the FTI projects. However, no explicit ToC was developed for the FTI projects to aid understanding of how change might happen.

The implementation of investment activities was carried out under the supervision of the woreda CRGE focal persons and experts of the WoA. Farmers in the Akaki and Dara woredas were familiar with most of the land conservation and watershed rehabilitation interventions. However, the farmers in the Doyogena Woreda were less familiar with these technologies. The implementation of these measures was therefore carried out through field demonstration by soil and water conservation experts of the WoA.

The CRGE Facility indicated that M&E activities should be used by projects to assess the extent to which key cross-cutting issues, such as gender, disability and environmental sustainability, were addressed. However, the extent to which this national top-down system was effective is unknown due to a lack of available records.

<sup>26</sup> Interview with the director at the Ministry of Agriculture who led the proposal development for the FTI projects.

## EQUITY

FTI projects were expected to address equity issues and this was reflected in the guidance for the development of investment proposals provided by the CRGE Facility. In particular, addressing gender equity and job creation were requirements for all investment proposals. However, in terms of greater social equity being achieved, the evidence from the three agricultural sub-projects is mixed.

In the Akaki Woreda, women beneficiaries were targeted with specific investment packages, although the scale of investment was limited to the supply of improved poultry breeds and access to grass from the enclosed hillsides. The distribution of high-value project assets, such as cattle and agricultural machinery, was targeted to relatively well-off farmers. In the Doyogena and Dara woredas, the nationally-determined equity considerations were downplayed by local concerns over securing successful project outputs.

With regard to job creation, every intervention/project is expected to create jobs for the youth and the jobless. New employment opportunities have been secured through the three FTI projects, associated with the conservation works in each of the three watersheds and income-generating activities, such as the sale of fodder, honey and vegetables.

## A1.6 Discussion

### POLICY FLOWS

The FTI projects have demonstrated the potential of targeted investments to reduce vulnerability to climate change and strengthen local resilience. However, the implementation of such projects requires increased coordination with similar activities undertaken through the regular government budget to enhance efficiency and ensure sustainability of the investments.

It was noted from the interviews that the CRGE Facility expected the implementing entities to focus on the delivery of tangible results, which in turn led to the implementing entities putting pressure on the executing entities to meet the demanding timelines of implementation. Although the focus on meeting the project timeline contributed to the overall success of the project, the outputs and range of planned activities were too many and ambitious to deliver impactful outcomes compared to the budget allocated to each woreda. DFID (2016) also noted the importance of designing a longer implementation period for such projects, as the short timeframe and the perceived pressure to deliver tangible results had limited project design and implementation.

The selection of the project sites was a policy decision carried out in consultation with key stakeholders at the federal and sub-national levels. As a federal ministry, the MoA liaises with regions and woredas to access information on current climate risks and vulnerabilities. According to an interviewee at the MoA, as the ministry implements other climate-related projects across the country, there is knowledge regarding the vulnerability situation of woredas. However, site selection was also determined by the prospect of successful implementation due to the pilot nature of the FTIs.

### FUNDING FLOWS

Funding for the FTI projects was obtained from the UK and Austria. The agricultural sector FTI project secured \$6.8 million for financing FTIs. Implementation of the FTI projects started in July 2014. Transfer of the funds was achieved by opening separate bank accounts at the federal, regional and woreda levels. Project funding was then transferred directly to the woredas, with only M&E funds transferred to the regions. Executing entities in the three studied sites indicated that delays in transferring funds was due to the long process of opening separate bank accounts. In the FTI, engagement of sub-national actors, especially government financial institutions, was minimal and this needs to be strengthened in the future.<sup>27</sup>

Interviews in the three case study sites all emphasised that the timeline for FTI projects was too short to implement the activities and deliver all the intended outputs. This was further constrained by the delay in the release of funding. Hence, going forward, the design of such projects needs to consider the provision of an adequate implementation period and efficient fund administration that ensures the timely release of financial resources. The CRGE Facility has since decided to switch the financial management of projects to the normal government channel (through the regional financial institutions) instead of relying on fund transfers from the sector ministries. Hence, a CRGE focal person has been appointed in each regional Bureau of Finance and the CRGE Facility is currently developing a financial tracking system for all the projects it finances.

### REPORTING FLOWS

Reporting flows appear to be the weakest of the channels between the implementing entity, executing entities and beneficiaries. The operations manual of the CRGE gives substantial emphasis to M&E of financed projects and the timely reporting of implementation actions. Separate reporting templates for activity and financial reports were prepared by the CRGE Facility in collaboration with the implementing entities to standardise the flow of reports. In addition, the MoA delivered training on reporting for regional and woreda experts who were responsible for the implementation of projects to ensure an efficient reporting flow. A quarterly report was expected from executing entities, however, this reporting system did not proceed according to plan.

The reports from the woreda administration were organised by two separate entities; the activity report was organised by the CRGE focal unit at the WoA and the financial report by the Woreda Finance office. In all three woredas, the coordination between these two entities regarding the FTI projects was weak. Reports were not properly organised, nor easily accessible. In general, available woreda-level reports are not of sufficient quality to undertake VfM analysis. The reports are not filled out to the required detail, which suggests that further capacity-building related to reporting is required. In addition, the reports are not properly organised and documented in the institutions, the WoA in this case, for easy access. Rather, the reports are available on the personal computers of the woreda CRGE focal persons. This is problematic given the high staff turnover

<sup>27</sup> Interview with the Coordinator of the CRGE Facility.

in the woredas and the regions. Reports available at the MoA and the CRGE Facility were aggregated for all FTI projects and therefore it was not possible to obtain woreda-specific information. There is a clear need to strengthen the documentation of project activities, including clear results metrics that allow for project performance to be measured effectively (DFID, 2017).

## **A1.7 Conclusions**

The findings reveal that there is similarity in the type and approach of investments across the three case study sub-projects. This is not surprising as the design and implementation of these investments was centrally coordinated and carried out under the leadership of one implementing entity, the MoA. All three FTI sub-projects had uniform project outputs and activities that were determined centrally by the implementing entity (IE). There were attempts, however, to adapt some of the project activities to local priorities through consultative meetings held with executing entities (EEs) and stakeholders. For example, in the Dara Woreda, the main challenge was water scarcity due to unreliable rainfall. Hence, specific investments were made in water harvesting technologies.

The findings suggest that the FTI projects enabled the implementation of a range of successful investments in watershed rehabilitation and land conservation, improving crop and livestock productivity, and thus reducing vulnerability and building resilience. Among the most visible achievements in all three case studies were the investments made to rehabilitate degraded hillsides. Land cover has improved and the watersheds now have a diverse range of plant species. This has reduced land degradation and off-site flooding risks. The risk of flooding, particularly in the Akaki and Doyogena woredas, has been significantly reduced.

The project interventions have also contributed to reduced run-off and improved water infiltration leading to increased ground water recharge and spring water yields. For example, in the Doyogena Woreda, springs that had disappeared due to watershed degradation have now reappeared. These investments have been the cause of inspiration for local communities, and it was observed during fieldwork that there is a strong sense of commitment and ownership in sustaining the outputs of the investments and to cooperate with similar investments in the future.

The sub-projects delivered tangible benefits in relation to crop and livestock production at all of the case study sites. Improved availability of grass for forage is a significant result that contributes to improved livestock production (where livestock constitute the main component of the farming system). The introduction of drought resistant crop varieties and investments in soil and water conservation measures to improve moisture availability has contributed to enhanced productivity and reduced household vulnerability to droughts. Farmers interviewed at all three sites witnessed the positive contribution of the intervention on crops and vegetables to vulnerability reduction.

With regard to the equity dimension of climate resilience, attempts to address equity issues were limited to involving a certain proportion of women as project beneficiaries and the involvement of small numbers of youth in income generating investments, such as bee keeping. The strategic focus of the projects was on the well-off households because of the importance given to demonstrating the successful implementation of project activities.

FTI projects, designed as pilot projects of the CRGE facility, have been important experiments in demonstrating the delivery of climate finance through a centralised national financial mechanism. These investments have contributed to reducing vulnerability to future risks and impacts through the introduction of drought resistant crop varieties, water conservation, and local capacity-building for risk management. However, planned investments related to risk monitoring and early warning systems that might ensure the sustainability of the investments in a changing climate have not been delivered, mainly due to financial constraints and the limited technical capacity of the EEs.

## Annex 2. Early outcomes of climate finance in Kenya: experiences from the CCCF mechanism<sup>28</sup>

### A2.1 Introduction

Climate change poses significant challenges to Kenya's social and economic development due to the economy's dependence on natural resources. Average annual temperatures are projected to increase by between 0.8 and 1.5°C by the 2030s and 1.6°C and 2.7°C by the 2060s (Government of Kenya, 2016). Projections for rainfall are less certain, although current trends include (i) unreliable and, on average, significantly reduced first rains of the long-wet season and, (ii) increased extreme events such as droughts and floods. Kenya's arid and semi-arid lands (ASALs) are particularly vulnerable to the impacts of climate change, as their economy is highly dependent on natural resources and thus climate-sensitive activities. In addition, these areas experience high rates of poverty, rising populations and competition over resources, and they suffer from limited access to infrastructure, markets and services.

#### THE CCCF

The Kenya country case study focuses on five ASAL counties where the CCCF mechanism has been piloted since 2013: Isiolo, Wajir, Garissa, Makueni and Kitui. The CCCF mechanism enables counties to create, access and use climate finance to build their climate resilience and reduce vulnerabilities to a changing climate in a way that is aligned with national policies. The mechanism consists of four elements: i) a CCCF; ii) climate change planning structures at county and ward levels; iii) integration of participatory planning tools, including climate information services, resilience/vulnerability assessments and resource mapping; and iv) participatory M&E of adaptation initiatives (Ada Consortium, 2018).

Each CCCF has the following generic institutional structure: a steering committee, which provides strategic direction; a county climate change planning committee (CCCPC), which manages the fund; a fund administrator, who acts as secretary to the CCCPC; and ward climate change planning committees (WCCPC) that prioritise investments. In addition, non-statutory site/user committees for each investment are established, being responsible for the day-to-day management of the CCCF investment. In addition, some counties add extra layers (such as fund boards) to provide further strategic direction for the management of the fund (Ada Consortium, 2018).

<sup>28</sup> This is a shortened version of a country case study for Kenya written by Florence Crick, Achiba Gargule, Sam Greene and Omeno Suji.

## A2.2 Study objectives and selection of CCCF investment projects

This case study addresses three study-wide questions:

1. How is climate resilience defined and measured at the national and sub-national levels?
2. What outcomes have been achieved by investments made by CCCFs, and what can be learned?
3. To what extent does the level of government involvement in the decision-making process affect the outcomes of activities that aim to strengthen climate resilience?

Fieldwork was carried out in five counties, with a focus on one investment (in Makueni, Garissa and Kitui) or two investments (in Waji and Isiolo) as case studies per county. In total, seven investment sites were visited out of a total of approximately 100 investments across the five counties. The investments were chosen in consultation with local partners and based on security concerns, ease of access to the site, and availability of respondents (e.g. ward committees, user committees) during the limited amount of time available for fieldwork. Across the five counties, the seven investments represent the broad range of investments funded by CCCFs, with selected investments focusing not only on the water sector, but also on a veterinary laboratory and a local community radio station.

Fieldwork involved focus group discussions with the CCCPCs in each county, the WCCPCs for each of the wards in which the seven investments are located, user committees for the seven investments, as well as with female, male and youth beneficiaries at each investment site. In addition, individual semi-structured interviews were held with a small number of beneficiaries as well as other key stakeholders at the county level (including directors and chief officers of key county departments). A summary of the seven investments is provided in Table A2.1.

**Table A2.1 Summary of CCCF investments**

COUNTY	INVESTMENT	EXPECTED BENEFITS FROM INVESTMENTS
<b>Makueni</b>	Masue Rock Catchment	<ul style="list-style-type: none"> <li>• Improved access to clean water</li> <li>• Small business generation</li> <li>• Micro-irrigation improving nutrition and income</li> </ul>
<b>Kitui</b>	Rehabilitation of Mikuyuni Dam	<ul style="list-style-type: none"> <li>• Improved access to clean water</li> <li>• Reduced cases of waterborne disease</li> <li>• Better management of water storage infrastructure</li> </ul>
<b>Wajir</b>	Jehjeh water pan	<ul style="list-style-type: none"> <li>• Increased availability and access to reliable sources of water for domestic and livestock use</li> <li>• Improved livelihoods</li> <li>• Improved governance of water use and access</li> <li>• Reduction of water-related disease</li> </ul>
	Guticha Borehole	<ul style="list-style-type: none"> <li>• Increased availability and access to reliable sources of water for domestic and livestock use</li> <li>• Improved governance of water use and access</li> <li>• Improved hygiene, sanitation and health</li> </ul>
<b>Garissa</b>	Goreale borehole	<ul style="list-style-type: none"> <li>• Improved water availability for human and livestock use</li> <li>• Improved hygiene, sanitation and health</li> </ul>
<b>Isiolo</b>	Kinna Veterinary Laboratory	<ul style="list-style-type: none"> <li>• Proper diagnosis and treatment of livestock diseases</li> <li>• Provision of affordable or subsidised drugs to users</li> <li>• Monitoring and surveillance of livestock diseases</li> <li>• Early diagnosis and regular monitoring of livestock</li> </ul>
	Garbatulla Community Radio	<ul style="list-style-type: none"> <li>• Providing information on insecurity, drought situation</li> <li>• Dissemination of rainfall distribution helping pastoralist migrate to areas where there is rainfall</li> <li>• Livestock market value, search of stolen or lost livestock</li> <li>• Ease of tracking of lost livestock</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

### LIMITATIONS OF THE STUDY

This country case study faced four main limitations. First, as noted above, this study is based on only seven investments out of a total of approximately 100 investments. The small number of investments and the qualitative nature of the fieldwork limits the potential to generalise the findings to all CCCF investments. The study is not based on a representative sample and its findings are therefore best viewed as being illustrative of the early implementation of CCCF investments at those sites visited. Second, the scope of the study was limited by the short amount of time available for fieldwork. Focus group discussions were held with the key committees (CCCPCs, WCCPCs and user committees) and beneficiary groups (with separate focus groups for women, men and youth). However, the small number of interviews with individual beneficiaries limited the opportunity to triangulate the findings from the focus group discussions. Third, the practice of devolved planning, and the CCCF mechanism itself, is relatively new (established in 2013) and so the governance structures and institutional processes that have been put in place are at an early stage. Fourth, the VfM framework requires access to all relevant project documents and assumes that proposal documents are of a sufficient quality. Unfortunately, access to project documents for the investments was impeded by the fact that there is not one central location in each of the counties where data and reports can be found. For example, the office of the Fund Administrator has been established in the regulations but is not yet instituted in a physical location within the counties. In addition, project proposal documents developed by WCCPCs were not always comprehensive in terms of the information they contained.

### A2.3 Defining climate resilience

At the national level, Kenya's key development policies, the National Adaptation Plan 2015-2030 and Kenya's Vision 2030, frame climate resilience within a context of economic growth, environmental sustainability and sustainable livelihoods (Government of Kenya, 2016). In ASALs, the impacts of climate change translate mainly as an increase in the frequency of drought events, and therefore the national Common Programme Framework for Ending Drought Emergencies (EDE) repeatedly links drought resilience with climate resilience and bundles responses to both together.

At the county level, the emphasis is mostly on reducing the vulnerability of local livelihoods to natural hazards through securing sustained and equitable access to productive assets and resources. To achieve climate-resilient livelihoods, county governments envisage sustained provision of basic services, such as health, water, education and livestock extension services, maximisation of production using appropriate technology, and sustainable exploitation of resources that addresses the needs of the communities. Thus, counties recognise the multi-faceted nature of climate resilience. This perspective on climate resilience sits rather uncomfortably alongside the counties' economic development objectives in the County Integrated Development Plans (CIDPs), and their promotion of industrialisation and economic growth. Such development is normally pursued through large-scale investments in health, education and infrastructure. These

investments are reported to often be developed without taking climate change into consideration and without effective community consultation, and therefore may have negative impacts on the resilience and adaptive capacity of households and communities to climate change.

At the ward level, climate resilience is assessed in terms of the ability of livelihoods of defined social groups to withstand climate hazards and stresses, and the contribution of social networks and institutions to the sustainable utilisation of resources. Interventions for improving community resilience often combine supporting adaptation strategies and the capacity-building of local customary institutions, with the expectation that their enhanced capacity provides the necessary stewardship for ecological and livelihood resilience. Climate resilience is thus understood in terms of multiple outcomes that social groups seek to achieve through livelihood assets as well as through social and institutional networks.

At the beneficiary/household level, there is a recognition that multiple factors are needed to build climate resilience including diversified income sources that are dependent on climate vulnerable sectors, improved weather and climate knowledge, new farming practices, improved water resource management, as well as supportive legislation and institutional structures.

#### **DEFINING THE ELIGIBILITY CRITERIA FOR INVESTMENT SELECTION**

The prioritisation of investments under the CCCF is expected to follow a nine-step process (Ada Consortium, 2018) that was established in the original design of the CCCF mechanism. First, WCCPCs are informed of their budget for projects against which they can prioritise proposals. Second, they are expected to conduct participatory assessments of communities' vulnerability or climate risks. These assessments are then used through a community consultation process to prioritise investments in public goods, whose costs remain within the ward's budget envelope and meet the funding criteria for the promotion of climate resilience growth and adaptive livelihoods (Ada Consortium, 2018). The list of funding criteria reflects the broad framing of climate resilience in terms of economic growth, environmental sustainability and social welfare.

#### **DEFINING THE SUCCESS CRITERIA OF INVESTMENT IMPLEMENTATION**

Investment proposals include a ToC for climate resilience as well as an M&E plan to track beneficiaries and the achievement of the investment's objectives and benefits. Each investment proposal also contains a set of indicators against which the investment's success will be assessed. The CCCF design is for these success criteria to be determined in a collaborative way using participatory planning tools and then to be monitored using a similar approach.

## A2.4 Documenting project outcomes

### A2.4.1 WAJIR COUNTY: JEHJEH WATER PAN AND GUTICHA BOREHOLE

#### DESCRIPTION OF THE INVESTMENT AND OUTCOMES

The dominant livelihood activity in Wajir is pastoralism, but drought disrupts local livelihoods and leads to high livestock mortality and an increase in resource as well as human/wildlife conflicts. The main aim of both CCCF investments was to build the climate resilience of pastoral livelihoods to drought risks by increasing availability and access to reliable sources of water for domestic and livestock use and improving the governance of water use and access. In the case of Jehjeh water pan, the aim was also to increase the availability of water beyond the wet season into the dry season, thereby reducing the need for accessing alternative water sources that may be far away at a difficult time of year. Prior to the CCCF investments:

- Jehjeh water pan is the only source of reliable rainwater in the area for both domestic and livestock use. As a result, during the dry season, competition for water from locals, migrant pastoralists and wildlife has been a key cause of water stress and occasional conflict.
- Guticha has one borehole that serves both domestic and livestock water needs for the local and in-migrating pastoralist population. During the dry season, queues are usually long and time consuming. The borehole, which runs on a diesel-run generator set, requires regular and expensive maintenance, especially during droughts.

For the JehJeh water pan, according to the ward planning committee and the communities, the 2016 CCCF investment of KShs 4 million (\$39,000<sup>29</sup>) has reduced water contamination by livestock and wild animals. It has also increased the availability of water for longer periods after the rains. Indeed, all respondents mentioned that the water in the pan can now last for up to eight months instead of only four, as was previously the case. These successes have been achieved through investments in fencing and separate water drawing points for domestic users, livestock, and wild animals, as well as through stricter enforcement of user rules. The user committee highlighted that there were improved relations with migrating pastoralists because a representative of each migrating pastoral group is now a member of the pan committee for the duration of their use of the pan.

Guticha borehole currently serves about 5,000 households. As a result of the 2018 CCCF investment, also of KShs 4 million (\$39,000<sup>30</sup>), the borehole now pumps water into an elevated steel tank that provides water to a water kiosk and livestock watering troughs. A perimeter fence was also built around the borehole. Water is available for both domestic and livestock use, a departure from the situation before the investment where congestion and competition for scarce water resources led to scarcity and conflict. Mirroring the situation in the JehJeh

<sup>29</sup> Exchange rate on 1 June 2016.

<sup>30</sup> Exchange rate on 1 June 2018.

water pan, the management committee for the Guticha borehole sets water use and access rules, prepares household schedules for livestock access to water, and collects and keeps records of water charges.

**Table A2.2: Summary of CCCF investment outcomes in Wajir county**

INVESTMENT	CHANGES OBSERVED
JehJeh water pan	<ul style="list-style-type: none"> <li>• Increased water availability throughout the year</li> <li>• Reduced livestock deaths</li> <li>• Improved management of water resource</li> <li>• Reduced competition for water between domestic usage and livestock</li> <li>• Clean water for domestic use</li> </ul>
Guticha borehole	<ul style="list-style-type: none"> <li>• Change in mindset – greater sense of control over water access and availability</li> <li>• Revaluing of water resources</li> <li>• Recognition of importance of good water governance</li> <li>• Reduced 'forced' migration due to water scarcity</li> <li>• Improved wellbeing</li> <li>• Improved livestock health</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

### EFFECTIVENESS

Both investments have improved access to clean water for domestic and livestock use. In terms of building climate resilience, these investments are presently delivering on the different elements identified within each investment ToC. These elements include increased access to clean and safe water for both human and livestock use, improved livestock health and hygiene, reduced conflicts, and improved revenue collection. Customary institutions also appear to have been strengthened by these investments, as new governance structures based on cooperation between customary and formal institutions have been established. For example, the WCCPCs incorporate local elder institutions in their membership. Customary institutions still govern many aspects of pastoral life, for example managing pasture or overseeing the rules that govern access to water, and hence their incorporation into the WCCPC contributes significantly to the effectiveness of the investments.

### EQUITY

In Wajir, discriminatory social norms within formal and traditional institutions have traditionally limited women's opportunities to participate in decision-making processes. While these issues remain, the inclusive participatory process adopted by the CCCF has enabled women to become engaged in the decision-making process for the investments. Women are now also members of the WCCPCs and user committees. Nevertheless, interviews and focus group discussions for the two investments suggest that the women who serve in these committees often play a peripheral role regarding investment decisions. The lack of strong participation by women in the decision-making process is reflected in the theories of change for the investments, which have a stronger focus on livestock and do not fully consider how women's resilience to climate risks could be increased.

### **STRENGTHENED CLIMATE RESILIENCE**

Both CCCF investments appear to have led to additional benefits not captured within the ToC, yet which are critical to increasing community resilience to drought and climate change. Sustained and improved availability of water for domestic and livestock use during the dry season appears to have led communities to re-value their resources and better understand how improved management of such resources can reduce the impacts of drought. This indicates a contribution (building on prior efforts) to a change in mindset from a passive acceptance that droughts lead to water scarcity to a realisation that communities can control and manage their resources in a way that reduces the impacts of a drought, increasing their climate resilience. Such a change in mindset can help empower communities and make them more proactive in the way they respond to climate risks.

While the investments are considered successful by all actors, challenges remain to ensure their long-term sustainability, especially as there is evidence of a high failure rate of water investments in ASALs more generally (Bedelian 2019a, b and c; Cullis et al. 2019; Mtisi and Nicol 2013; USAID 2014). Although the CCCF investments are community-driven and integrated into the county planning systems, they are still done within a context of significant 'development deficit' and inappropriate water governance. In Wajir, investments in water development suffer from a lack of coordination between the different institutions involved, an emphasis on water infrastructure over building the capacities of local people to manage water facilities, and a lack of consideration of sustainable rangeland management practices (Bedelian, 2019a; b; and c).

#### **A2.4.2 GARISSA COUNTY: GOREALE BOREHOLE**

##### **DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The Goreale Ward is located within Garissa County, where the principal livelihood activity is pastoralism. The main source of water for livestock and human consumption is ground water accessed through shallow wells. There is much competition between livestock and domestic users, especially given heightened livestock numbers during droughts. The CCCF investment in Goreale responded to these water challenges by providing segregated water provision points for domestic and livestock users through the construction of water kiosks and livestock watering troughs. Before the investment, women and children had to walk long distances to fetch water from another borehole, which was used for both domestic and livestock purposes. Water provision was not enough for both households and livestock, which led to high water costs as well as conflicts between communities. In addition, the water pumps at the borehole often broke down due to over-use.

A total of just under KShs 3.4 million (\$32,000<sup>31</sup>) was spent on the Goreale borehole to install water kiosks in three different village clusters and three water troughs for livestock. The supervision of investment inputs was provided by the local user committee with remote oversight by the WCCPC, which reduced the costs of implementation. Table A2.3 list the changes observed as a result of this investment.

**Table A2.3: Outcomes of the Goreale borehole investment**

CHANGES OBSERVED
<ul style="list-style-type: none"> <li>• Reliable water source for local population and livestock, as well as livestock from neighbouring counties</li> <li>• Increased safety for women</li> <li>• Benefits extending to population beyond the local area</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

#### EFFECTIVENESS

The Goreale water works has improved access to clean water for human consumption. All actors were positive about the success of the investment. Key benefits reported by households include a reduction in the distance and time for drawing water and increased access to clean water, which is leading to improved human health. It appears that the creation of a user committee, which oversaw the investment, is leading to a more efficient use of the water, and to the community re-valuing their water resources, something which they were previously taking for granted.

#### EQUITY

The Goreale water investment has been particularly beneficial for women. It has increased their safety as they no longer need to fetch water from the borehole at night, when there was the risk of attack by wild animals. Instead, women access water from the water kiosks in the villages, although this continues to be done at night because of the prioritisation of water use for livestock during the day. In addition, the separation of water points for human and livestock use has enabled women to become active participants and decision-makers in water resource management. The water kiosks are now managed by the local women's group under the supervision of the borehole user committee.

#### STRENGTHENED CLIMATE RESILIENCE

Despite the benefits mentioned above, there are some critical challenges that remain to ensure the long-term sustainability of the benefits to the local population and, hence, their resilience to the impacts of climate change. The increase in the population drawing water from the borehole since the investment was made has led to increased wear and tear on the water pump and a deterioration of the borehole yield. This in turn has forced the user committee to enforce strict planning for water use and to prioritise pumping

<sup>31</sup> Exchange rate on 1 June 2017.

water for specific uses at designated times. Because of the reduction in water yield the school and dispensary were made to make their own connection from the water kiosk instead of fetching from the kiosk directly, thus rationing their usage. Water for domestic use is also pumped at night to enable uninterrupted water pumping for livestock use during the day. The increase in people using the borehole has also led to migration of livestock herds away from the ward,<sup>32</sup> which is having a negative impact on nutrition and food security in general. However, many of these challenges need to be framed within the wider context of the 'development deficit' within which they occur and inappropriate water governance.

### **A2.4.3 MAKUENI COUNTY: MASUE ROCK CATCHMENT**

#### **DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The Mbitini Ward of Makueni County has a population of just less than 40,000. The major livelihood activity in there is agro-pastoralism. The ward is prone to water and pasture shortages with impacts on the livelihood of communities dependent on these resources. The ward also suffers from deforestation and severe erosion leading to deep gullies and floods. The Masue rock catchment investment was planned to increase community access to clean water, reduce the number of waterborne diseases, reduce the distance and time to access water sources, and enhance afforestation. Before the investment was made, rock runoff was causing significant soil erosion leading to deep gullies and impacting crop yields. In addition, there was inadequate access to water for human and livestock purposes, with community members spending more than four hours to fetch water. This had impacts on human and livestock health with high rates of waterborne diseases. There were also conflicts at watering points.

The CCCF investment for the Masue rock catchment amounted to just over KShs 8.2 million (\$79,000)<sup>33</sup> and provided concrete gutters for water collection, storage tanks and distribution lines, water kiosks, sanitation facilities and connections to two schools. Since these investments were made, all actors have reported significant benefits to the community (Table A2.4). The user committee and WCCPC were positive about the investment and highlighted that access to water for domestic use had improved, having reduced the distance and time needed to fetch water. They also suggested that both human and livestock health were improving and that there was greater availability of water for irrigation. Beneficiaries interviewed also mentioned that the investment is having positive impacts on the children, as they are spending more time in school because they no longer need to carry water.

<sup>32</sup> Migration of livestock herds away from the ward is happening because the increase in people using the borehole has led to water scarcity (low yields, high population of livestock and domestic users) and overuse of pasture around the borehole.

<sup>33</sup> Exchange rate on 1 January 2017.

**Table A2.4: Outcomes of the Masue rock catchment investment**

CHANGES OBSERVED
<ul style="list-style-type: none"> <li>• Livelihood diversification and increase in economic activity</li> <li>• Improved access to water/reduced time fetching water</li> <li>• Improved water quality</li> <li>• Hygiene improvement</li> <li>• Reduced water costs</li> <li>• Increased school attendance</li> <li>• Improved education for children</li> <li>• Improved living conditions</li> <li>• Free time for additional activities</li> <li>• New income-generating activities/livelihood diversification</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

#### EFFECTIVENESS

There is evidence that some of the early steps on the ToC developed for this investment are being achieved, e.g. increased access to water, reduced distances and time to fetch water, and improved human and livestock health. In addition, some beneficiaries mentioned that the increased free time they now have is being used to develop various income-generating activities, such as starting tree nurseries and kitchen gardens. Although these are positive signs that suggest that the investment is leading to increased incomes and improved living standards (steps further along the ToC), it is too early to assess whether this impact will be sustained and lead to significant changes in the climate resilience of the beneficiaries.

#### EQUITY

Interviewees from both the executing entity and the direct beneficiaries felt that this investment is gender sensitive. It has addressed the strategic gender needs of time and labour for women and children, who bear the greatest responsibility for providing water for the households in this community. This has allowed women to diversify their livelihoods by developing additional income-generating activities and enabled girls to spend more time in school.

Gender representation in the WCCPC is in line with the CCCF Regulations, which require a minimum representation of two women in the WCCPCs. In addition, in Makueni County there are reports of inclusion extending to include people living with disabilities. In the user committee (where the Regulations do not stipulate gender requirements) women's representation was a lot higher, at almost 50%. Overall, the Regulations are very clear on the requirements for equity and gender representation, the challenge remains the implementation and reinforcement of these requirements. This is a much broader societal issue, which the CCCF mechanism is challenging through its focus on participation and inclusion.

**STRENGTHENED CLIMATE RESILIENCE**

The ward committee, user committee and beneficiaries were all very positive about the impact of the investment. Yet, some challenges remain. Indeed, the ward and user committees are concerned that there is excess run-off from the rock that is causing new gullies to form. This could lead to soil erosion and damage to infrastructure. Additional storage tanks are needed to capture all the excess water. This highlights the need for, and importance of, a sustained flow of climate finance to the ward level. In addition, they are concerned about sustaining the public good from the investment and ensuring that as many people as possible benefit. The site committee also mentioned they are planning to charge a small water fee to raise funds for maintenance, but also to support committee members who might have no stable financial incomes to enable them to attend meetings and fulfil their (non-statutory) duties.

**A2.4.4 KITUI COUNTY: MIKUYUNI EARTH DAM REHABILITATION****DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The Mikuyuni earth dam rehabilitation CCCF investment is situated in the Kauwi Ward in the west sub-county of Kitui. Water access and availability are major challenges, and people walk long distances in search of water for both domestic and livestock uses. During severe droughts Kauwi residents are forced to draw water from the main reservoir tank in Katheka, which is up to 20km away for some residents. The Mikuyuni earth dam was built in 1994, but did not include catchment protection and any draw-off system due to a lack of funds. The dam filled with silt due to poor land management practices and, prior to the rehabilitation of the dam, it could only sustain the local population for two months. The rehabilitation work carried out in 2016 aimed to address these issues and serve over 2,000 households. In addition, a tree nursery was established at the dam to support an afforestation programme throughout the Kauwi Ward.

Before the dam was rehabilitated, the earth dam would dry up during the dry season and community members, especially women and children, had to travel several hours to access water points. In addition, the water was frequently contaminated by livestock, as the dam was not fenced, leading to households being exposed to waterborne diseases. Households in the community also lacked water to irrigate their farms and gardens. The CCCF investment in 2016/2017 totalled a little over KShs 11 million (\$103,000<sup>34</sup>), which was spent on reconstructing the earth dam, building a 1.5km perimeter fence and a cattle trough, and installing domestic water points. All those interviewed agree that the investment has been successful in delivering on its original goals (Table A2.5). The quantity and quality of the water at the dam has improved, and it is available for both household and domestic use.

<sup>34</sup> Exchange rate on 1 January 2017.

**Table A2.5: Outcomes of the Mikuyuni earth dam rehabilitation investment**

**CHANGES OBSERVED**

- Increased water availability and access
- Freeing up of time for other activities (e.g. education, farming, tree planting)

Source: Authors of Overseas Development Institute (ODI).

**EFFECTIVENESS**

Both the WCCPC and the beneficiaries have reported significant benefits to households in the community. Water is now available all year, and families that farm around the dam use the water for irrigation purposes, allowing them to farm during the dry season. This not only provides families with additional income, but also fresh and affordable food for the community. In addition, youth from the community are producing tree seedlings for sale, instead of cutting down trees for charcoal. However, the WCCPC is aware that this one investment cannot address all the water needs of the community and is looking at additional sources to expand water supply. Further, the committee has highlighted the need to ensure that nearby farmers terrace their farms to reduce the siltation of the dam. This has been supported by linkages with the county Ministry of Environment, the Kenya Forest Service and the Kenya Forest Research Institute, which supplied the neighbouring farms with over 2,000 seedlings to plant on their farms.

**EQUITY**

This investment has met several strategic gender needs, especially for the women and youth who can invest their time in other economic activities. The youth are now engaged in environmentally friendly activities, such as the establishment of tree nurseries instead of the destructive practices of charcoal burning and sand harvesting. Gender representation within the WCCPC meets the legal requirements set out in the Kitui CCCF Regulations, which stipulate that there should be at least one woman and one youth representative from each gender. One of the wards has achieved a greater representation of women than men, with women representing 55% of committee members.

**STRENGTHENED CLIMATE RESILIENCE**

The investment is already delivering on some of the early steps of the ToC: increased access to water for domestic use, livestock use and farming. In time, if the success of the investment is maintained, this should lead to achieving some of the steps further up the ToC: improved animal and human productivity, increased household incomes, and improved forest cover. However, the siltation of the dam remains a threat to its sustainability and thus the climate resilience of the beneficiaries. Fencing off the dam area has helped, but the surrounding farms upstream will need to be sensitised and trained on soil conservation measures to ensure that near-zero soil will wash into the waterways.

### **A2.4.5 ISIOLO COUNTY: KINNA VETERINARY LABORATORY AND GARBATULLA COMMUNITY RADIO**

#### **DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

Pastoralism represents the main livelihood activity of Isiolo County and is the mainstay of the county's economy, supporting over 80% of the population. The two CCCF investments reflect this economy as funding was provided to strengthen support services to pastoralist communities.

#### **KINNA VETERINARY LABORATORY**

Livestock diseases have increased significantly in Isiolo in recent years, with disease outbreaks being a frequent occurrence in the Kinna catchment. The renovation and equipping of the Kinna Livestock Disease Laboratory was therefore undertaken as a key priority in the ward. The overall goal was to protect pastoral livelihoods in the area through the diagnosis of livestock diseases, the monitoring and surveillance of livestock diseases, and the provision of subsidised drugs. In October 2013, the WCCPC commissioned the renovation and equipping of the laboratory at a cost of KShs 6 million (\$69,000<sup>35</sup>) matched by a commitment by the County Department for Veterinary Services to provide staff for the laboratory. The CCCF investment led to the renovation of the laboratory building, the installation of veterinary equipment, as well as the provision of livestock drugs and vaccines. A laboratory technician was posted to the facility by the national government on a temporary basis with the expectation that the county government would subsequently recruit a technician.<sup>36</sup>

All interviewees strongly stated that, while in operation, the availability of timely livestock disease diagnosis and prescription services from the laboratory was on track to meet ambitious targets to control and prevent livestock diseases in Kinna. It also played a key role in storing vaccines. At the household level, beneficiaries reported improvement in livestock health and survival rates. At the community level, the presence of a veterinary technician ensured that community members were provided with demonstrations and technical advice on livestock health and the administration of drugs.

#### **GARBATULLA COMMUNITY RADIO**

Access to timely weather, security and market information are some of the factors that facilitate mobility of pastoral populations and by extension their resilience to climate shocks. The overall goal of the CCCF investment in Garbatulla's community radio was to assist short-term planning by communities, and public awareness raising on general development and governance issues, which are critical for building the climate resilience of local communities. The construction and equipping of the radio station was undertaken in partnership with the Kenya Meteorological Department (KMD). The WCCPC investment of over Kshs 10 million (\$116,000<sup>37</sup>) included the cost of the building and the installation of the solar power back-up system for uninterrupted broadcast of weather and development information.

<sup>35</sup> Exchange rate on 1 October 2013.

<sup>36</sup> The technician was withdrawn after only six months due to funding constraints.

<sup>37</sup> Exchange rate on 1 October 2013.

All actors interviewed agree that the investment in Garbatulla community radio has provided information that should help community members better manage the impact of droughts and other hazards. The radio has resulted in the availability of high quality and up-to-date drought and rainfall information required by local pastoralists. However, there is no evidence, as yet, of behavioural change attributable to the provision of this information.

## **EFFECTIVENESS**

### **Kinna**

The effectiveness of the CCCF investment was severely undermined by the lack of recurrent funding from the county administration to support a laboratory technician at the facility. This is linked to the broader context of an under-funded livestock sector.

### **Garbatulla**

The provision of a drought early-warning information system through the community radio has reaffirmed its importance within the Garbatulla community. By hosting shows that feature local dedha leaders, political and county officials, the community radio can communicate much more assertively on issues such as climate change, natural resource governance, devolution and inter-communal relations. As a result, the Garbatulla community can better address the impacts of climate change and current and future livelihood risks. In terms of content, the radio programmes reflect the interest expressed by the local communities in addressing not only livelihood-related information, but also critical emerging issues related to devolution, health, education, trade and national political debates.

## **EQUITY**

The focus on inclusion in the CCCF mechanism is enabling women in Isiolo to take a greater part in decision-making than they have in the past. They are now involved in the climate change planning committees at ward and county levels. In some WCCPCs, women have been elected to executive positions. In others, they are leading community consultations alongside men to prioritise CCCF investments. Some of the women WCCPC members have also taken up leadership roles within their communities, including as ward administrator, assistant chief and teacher. This helps capture women's voices in pastoralist communities, where women have traditionally not spoken alongside men in public events (Bonaya and Rugano, 2018).

## **STRENGTHENED CLIMATE RESILIENCE**

### **Kinna**

The long-term success of this CCCF investment was seriously undermined when laboratory services were abruptly terminated after six months, when the laboratory technician posted to the facility left. This stopped the laboratory providing sustained disease diagnosis and prescription services. In addition, a large consignment of drugs and vaccines expired, forcing the county veterinary department to dispose them. Almost all respondents blamed the collapse of the laboratory on the bureaucracies of the national and county governments' failure to recruit and deploy staff. However, a laboratory technician has now been appointed by the county government and the laboratory is once again functional.

**Garbatulla**

A critical limitation to the radio is that it only covers a radius of 29km, limiting the involvement and benefit to communities beyond this range. This limited geographical coverage means that it cannot be used by herders who travel beyond this scale. This limited coverage is due to resource limitations and highlights the need for regular and sustained flow of finance to the local level.

**A2.5 The governance of delivering climate finance****A2.5.1 HOW INVESTMENT CHOICES ARE MADE IN THE CCCF**

The CCCF mechanism is designed to ensure strong community participation in the process of developing and prioritising investments that build climate resilience. Ward committees use participatory planning tools, such as resilience assessments and resource mapping (in Wajir, Garissa and Isiolo) or participatory vulnerability and capacity assessments (in Makueni and Kitui), leaving the communities to identify climate risks and community priorities, which are then used by the ward committees to develop project proposals. Each ward committee is expected to be informed of their budget, representing an equal share of the overall county budget allocation given for ward-level investments. This process is intended to encourage a more effective and participatory planning process (Ada Consortium, 2018).

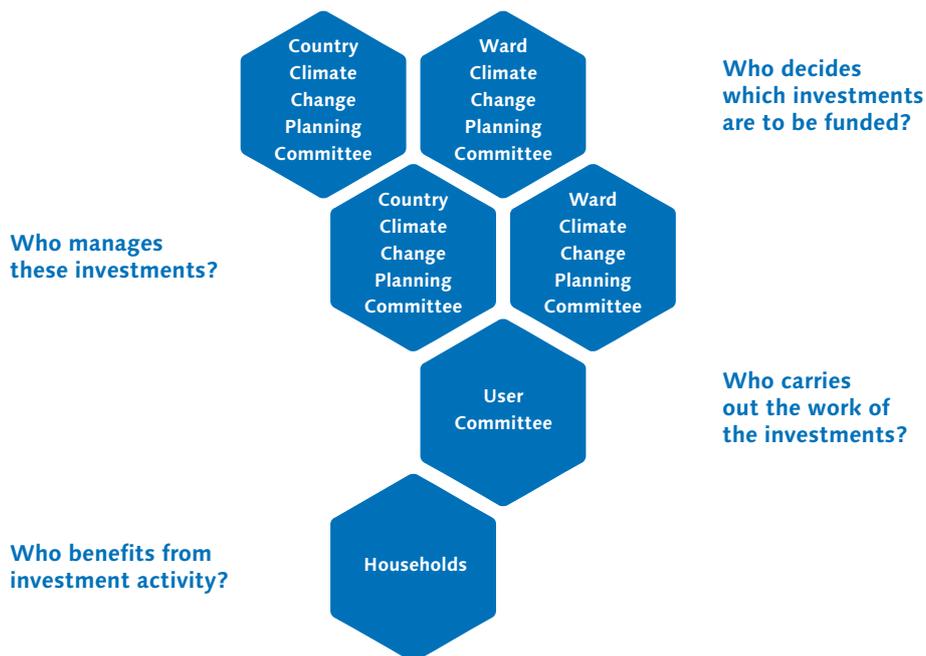
The ward committee then considers the different priorities, assesses their merits against strategic investment criteria and decides which investments to prioritise. The prioritised investments are then submitted to the CCCPC. The county committee is expected to provide technical support to the ward committees and help strengthen their proposals, but it does not have the authority to reject prioritised proposals if the strategic criteria are met. This provision within the CCCF mechanism is to promote the principle of subsidiarity, ensuring decisions over funding are made at the appropriate level. Once the investments are approved, the county government is responsible for the procurement of service providers to implement the investments on the ground. Ward committee members participate in the key steps of this process, such as witnessing the opening of bids and choice of service provider.

In this section the governance and institutional structure of the CCCF mechanism in the five counties and the impact this is having on the investments is examined.

**A2.5.2 STRUCTURE OF THE CCCF**

The structure of the CCCF is portrayed in Figure A2.1. The structure is the same across all counties, as the role and responsibilities of the different county and ward committees are defined in the same way by the different acts and regulations.<sup>38</sup>

<sup>38</sup> This has been confirmed by a recent legal review of the CCCF, which examined the three acts and two regulations developed by the five counties.

**Figure A2.1: CCCF structure applicable to all five counties**

Source: Authors of Overseas Development Institute (ODI).

The role of decision-maker is carried out by both the ward and county climate change committees. A key principle of the CCCF is that it supports community-driven, bottom-up planning and it does so by giving the WCCPCs the role of working with communities to develop and prioritise investments in local public goods that strengthen communities' adaptive capacities. The WCCPCs represent the central pillar of the CCCF. The CCCF challenges business-as-usual models in seeking to operationalise the principle of subsidiarity and devolving decision-making powers beyond the county level to the ward level. It is a key feature of the CCCF mechanism that decision-making is done at both the ward and county levels, and not simply at the county level. The role of the CCCPCs ensures that the principle of subsidiarity is applied, with appropriate checks and balances in place. CCCPC rejections of WCCPC-prioritised proposals are very rare. For example, CCCPCs in Isiolo and Wajir only rejected one proposal each, on technical grounds, out of 43 and 36 proposed investments respectively.

The role of implementing entity is also carried out by both the WCCPCs and CCCPCs, as they both have sets of responsibilities in identifying, preparing, and appraising investment proposals, and then in supervising and evaluating the investments.

The role of executing entity is undertaken by the user committees and service providers. User committees are responsible for the day-to-day management of the investments once in place, and the service providers carry out the work required for the investment and are accountable to the implementing entities for the use of funds.

### A2.5.3 WAJIR COUNTY INVESTMENTS

The Wajir CCCF has been operational since April 2016 and has funded 24 investments in various wards. Initial funding was provided by donors. However, from financial year 2017/18, the Wajir CCCF Act allocated KShs 8 million (approximately \$76,000) to match the funding provided by Sida. Past experiences of local communities with governance institutions at the county and national levels have not always been positive and have undermined the success of projects. Interviews with community members revealed that they felt that county institutions tended to be weak, fragmented and unaccountable to the communities, and that investments had a tendency to be overtaken by commercial or political interests (hence often failing to reflect community priorities). By contrast, for the investments under the CCCF, the communities strongly feel that they have a voice on how the projects meet their community needs and climate resilience objectives.

The implementation of the Wajir CCCF is not without challenges. One has been the fact that the CCCPC leadership has changed three times since the inception of the fund in 2016 due to government changes prior to and following the 2017 general elections. In addition, two provisions within the Wajir CCCF Act that came into force in 2016 were challenged because they did not conform with the national Public Finance Management Act. The Controller of Budget – an independent office that oversees implementation of national and county budgets and authorises withdrawal of public funds<sup>39</sup> – raised two critical issues that needed revision within the act before the county government contribution to the fund could be accessed. First, the administrative costs of the fund would have to be capped at 3% in compliance with Public Financial Management (PFM) Act regulations, down from the proposed allocation of 10% (although this largely an accounting issue due to differences in interpreting what constituted 'administration costs'). Second, the County Executive Member responsible for Environment Energy and Natural Resource, under whose department the fund is anchored, was required to confirm in writing that the fund's existence will not depend entirely on the county government exchequer contribution. Both of these issues have now been resolved.

### A2.5.4 GARISSA COUNTY INVESTMENTS

The Garissa CCCF was established through the Garissa CCCF Act, 2018. As a result, the county will commit 2% of its development budget to funding adaptation actions prioritised by communities. The governance and institutional structure of the CCCF appear to have had positive impacts, especially at the ward level. The county committees have helped to build the capacity of the WCCPC over a range of issues and thus enabled WCCPC members to undertake the range of tasks for which they are responsible. For example, the WCCPC was strongly involved in supporting the process of community participation and investment prioritisation in Goreale Ward, which required negotiating complex and competing community needs. The strong community participation focus of the CCCF has also led to increased community ownership and buy-in of

<sup>39</sup> <https://cob.go.ke/>

the investments. Funding adaptation actions prioritised by communities has led to the development of projects that incentivise and complement existing community, county government and national government efforts/projects and therefore helps to increase the efficiency of investments in building resilience of communities to the effects of climate change.

A challenge with the CCCF has been the under-budgeting of M&E components, especially to cover county-wide monitoring. This is particularly relevant for large counties, where distances between investments can be significant. This inevitably leads to deficiencies in reporting.

### **A2.5.5 MAKUENI COUNTY INVESTMENTS**

In Makueni, the 2015 CCCF Regulations, which were formulated under the national Public Finance Management Act of 2012, provide structures and mechanisms for vulnerable communities to access and use climate finance to build climate resilience. The county committees hope that this legal framework will attract more resources from both the national government and development partners. The regulations commit the county to allocating a minimum of 1% of the county budget to climate change activities. Since 2016, 15 CCCF projects have been funded (nine in the first phase of funding and six in the second phase). Implementation of the fund was held up from late 2017 to early 2018 because of political transitions associated with the national general election. However, by mid-2018, Makueni had allocated KShs 8 million (\$79,000<sup>40</sup>) to the CCCF for a second round of investments.

The CCCF mechanism, through its emphasis on community participation and the use of a user committee to manage the investments, ensures that the beneficiaries are actively involved in the development of project proposals, in the construction works and in the day-to-day management of the investments. During the construction works for the investment, the site committee helped to mobilise and manage local labour and materials. The governance framework of the CCCF also results in reporting flows going from the beneficiaries right up to the county level, helping to improve coordination between levels.

A challenge for the CCCF identified by the WCCPC is the lack of clarity in the reporting processes between contractors and ward committees. As contracts are signed with the county government, the contractors report to the county rather than the ward committees, leaving the latter ill-informed of progress. The WCCPC suggested that the reporting lines should be clarified to the contractors so they report to the WCCPC. A second challenge is the long-term financial viability of the user committees, as these non-statutory committees require funding for meetings and transport. For the Masue rock catchment investment, the project NGO partner (ADS-E) covered these costs. However, it is unclear how these costs will be met in the future, jeopardising the committee's ability to operate and manage the investment.

<sup>40</sup> Exchange rate from KShs to dollars on June 2018.

### **A2.5.6 KITUI COUNTY INVESTMENTS**

The Regulations of the Kitui CCCF were published on 17 May 2018. The emphasis on community participation within the CCCF mechanism has resulted in a strong buy-in and ownership of the investments by the communities. The user committees have also undertaken advocacy and sensitisation through educating communities on the impacts of climate change, in effect, enhancing ownership of the investments. An additional benefit of the CCCF mechanism is the focus on building the capacity of the WCCPCs. WCCPC members go on exposure visits, receive training in proposal writing and develop links with county departments, such as agriculture, health and IT. The governance framework of the CCCF also results in the user committee developing performance reports on each investment and submitting those to the WCCPC. The WCCPC then compiles reports of all investments and submits these to the Fund Administrator, who prepares and submits quarterly reports to the CCCF Steering Committee for approval and onward submission to the County Executive Committee Member for the Treasury. Overall, the county committees believe that the CCCF will help build the climate resilience of communities, especially now that the regulations have been passed.

### **A2.5.7 ISIOLO COUNTY INVESTMENTS**

The CCCF experience in Isiolo County appears to be improving decision-making at all levels, from community to county, in relation to building climate resilience. For example, the CCCPC has supported the WCCPC through capacity-building initiatives, especially to build the WCCPC's negotiating skills and improve its capacity to negotiate competing community priorities. The WCCPC itself is seen as a critical component of the effectiveness of the investments. In addition, emphasis was also placed on learning to improve effectiveness. For example, WCCPC-organised exchange visits between various WCCPCs have been undertaken to share examples of good practice and lessons learnt from the various investments. The CCCF's emphasis on community participation and bottom-up decision-making ensured strong ownership and buy-in from the communities and that the objectives of the investments were relevant for building resilience of the households and communities. This approach was also seen as a considerable departure from previous government and development partner approaches.

One of the challenges, revealed in the discussions with the CCCPC, is the lack of funds for long-term M&E at both the county and investment levels. M&E components of investments are often under-budgeted and therefore not sufficient to cover county-wide monitoring. At the county level, according to the CCCPC chair, the committee has not had any M&E budget for over three years and has struggled to keep in touch with the WCCPCs. The discussions also revealed the CCCPC's lack of current engagement with the investments. However, the chair of the CCCPC has strong capacity and is committed to and knowledgeable about the investments. In addition, the change in the Isiolo government after the 2017 elections meant that most county executives have little knowledge and engagement with the investments in the county, although this is not unique to Isiolo.

## A2.6 Conclusions

This case study has focused on seven investments across five pilot counties in Kenya to examine their impact on household and community climate resilience. It has also described the governance and institutional arrangements of the CCCF mechanism. Overall, the findings suggest that these investments are having positive impacts in terms of strengthening household welfare and their resilience to climate risks.

The investments focusing on improving water access and availability in Wajir, Makueni, Kitui and Garissa have led to several direct benefits: improvement in access to and availability of water for both livestock and domestic uses (with benefits felt by women and youth), lower water costs, and a reduction in waterborne diseases. In addition, these investments are showing some indirect benefits, with fewer conflicts between groups, better management of natural resources, and a strengthening of customary institutions for natural resource management. There have also been some educational benefits for children who are able to attend school for longer; and economic benefits through the diversification of livelihoods and creation of new economic opportunities. The Kinna veterinary laboratory and Garbatulla community radio in Isiolo also resulted in significant benefits to households. The laboratory is providing enhanced livestock disease diagnosis resulting in improved livestock health and survival rates. It also provided community members with new knowledge and skills on livestock treatment and disease control. The community radio improved the provision and dissemination of weather and development information.

The CCCF investments have also had significant direct benefits on women. As a result of the water investments, women have greater access to water for domestic use and spend less time fetching water. This has freed them to focus on other domestic chores, support their children's schoolwork, diversify their livelihoods and set up small businesses. This strong benefit of water investments on women is also found beyond these case studies and extends to the other CCCF investments (Ada Consortium, 2018). The CCCF mechanism's focus on inclusion and participation has also helped to enhance women's participation in committees and in decision-making processes.

The CCCF's governance arrangements and key principles, which promote the principle of subsidiarity, allocate decision-making at multiple levels. Such promotion of community participation has led to a strong sense of community ownership over the investments. The beneficiaries of CCCF investments are actively involved in the development of project proposals, in construction works, and in day-to-day management of investments, through user committees. This sense of ownership was mentioned by beneficiaries across all the investments. The beneficiaries also all noticed the difference in the way projects were developed through this mechanism compared with the way development projects have been traditionally implemented in their communities. This strong participatory approach appears to have led to the development and implementation of investments that better reflect communities' needs and priorities and complement existing initiatives. The use of user/site committees to manage the investments also appears to be a successful (although non-statutory) feature of the structure of the CCCF mechanism.

Ensuring the long-term success and sustainability of CCCF investments nevertheless remains a challenge because of the wider policy and development context within which they occur: a context of significant development deficit, continued failure by government and development partners to ensure water security, and inadequate water governance arrangements and policies that undermine the resilience of pastoral systems and communities. Some of the case study investments, which were showing signs of over-use, are providing evidence of how this context can reduce their effectiveness. In addition, the CCCF mechanism is trying to change the relationship between state and citizen and introducing concepts and operational features to support devolution, community participation and inclusion in a context where devolution and the transfer of power from the state to the county level is relatively new.

## Annex 3. Early outcomes of climate finance in Mali: experiences from three DCF investments

### A3.1 Introduction

Mali is a predominantly arid country, with only 5.3% of arable land.<sup>41</sup> A dependence on rain-fed agricultural systems has heightened Malians' vulnerability to severe weather events. Climate variability and extremes are being evidenced by reduced annual rainfall, increased temperatures, more frequent periods of drought and flooding, and decreased water levels in the country's major rivers. These climate-related changes are leading to a marked deterioration in soil quality and greater ecosystem fragility.

Local authorities are responsible for development planning, land use planning and natural resource management as well as providing public services, but their lack of institutional and financial capacity to deal with the threat of climate change leaves communities vulnerable to future climate risks.<sup>42</sup>

#### THE DCF MECHANISM IN MALI

The DCF mechanism in Mali took its design from the CCCFs in Kenya and adapted that to the decentralisation processes of Mali. Established under the BRACED programme, the DCF project piloted decentralised mechanisms in both Mali and Senegal. The goal of the DCF mechanism was to address the lack of local climate adaptation finance by designing a funding mechanism that ensured strong community participation in the process of developing and prioritising investments that build climate resilience.

A key element of the DCF mechanism in Mali is the CCA, located at the lowest tier of the national decentralisation structures, the commune.<sup>43</sup> CCAs work with the communities they represent to develop project proposals that aim to strengthen local climate resilience.

Overall, the DCF mechanism in Mali aims to:

- Establish a decentralised climate adaptation fund, under the discretionary control of local government, to finance rapid and appropriate community-prioritised investments;
- Create a socially inclusive and decentralised planning mechanism at the cercle and commune levels that supports local communities to establish priorities and implement investments in public goods and services that strengthen their resilience to climate change;

<sup>41</sup> World Bank database – Arable land (% of land area) 2016.

<sup>42</sup> BRACED (May 2019), Learnings from Decentralising Climate Funds in Mali.

<sup>43</sup> Decentralisation in Mali consists of the following tiers of government authorities: state, region, *cercle* (district) and *commune*.

- Enable local populations, local government and other local actors to access and use climate information to better manage both short-term and long-term risks;
- Develop the capacity of local governments to monitor the effectiveness of investments through a M&E framework;
- Generate lessons learned from implementation experience to contribute to a better understanding of effective ways of developing resilience to climate change; and
- Link national planning and financial architectural approaches with local governments to mobilise climate funding.

As was the case with the original design of the CCCFs in Kenya, the DCF funding mechanism in Mali is divided into three elements:

1. 70% of funding supports investments at the commune level;
2. 20% of funding supports investments at the cercle (district) level; and
3. 10% of funding supports the administration structures of the DCF mechanism.

At the outset, the DCF mechanism in Mali was dependent on international funding from the UK, with project funding channelled through an international organisation, the Near East Foundation (NEF). From 2018 onwards, project funds have been channelled through the National Agency for Local Government Investment (ANICT). ANICT is seeking accreditation as a national implementing entity for the GCF, which would allow further international climate finance to pass through Malian public finance channels.<sup>44</sup>

The DCF mechanism parallels efforts by UNCDF's Local Climate Adaptive Living Facility (LoCAL), which operated in two communes in Mali between 2014–2018. This UN Facility also aimed to demonstrate and highlight the role of commune authorities in promoting local climate change adaptation measures. This was achieved by integrating climate funding into budget transfer mechanisms and in the planning and allocation of local resources, using the national structure for the funding of communes. Both mechanisms, DCF and LoCAL, therefore have very similar aims, although they have operated in different parts of the country and have used different processes in implementing investments.

<sup>44</sup> As of 1 May 2019, ANICT's application for accreditation from the GCF was under review.

### A3.2 Study objectives and selection of DCF investments

This country case study addresses three study-wide questions:

1. How is climate resilience defined and measured at the national and sub-national levels?;
2. What outcomes have been achieved by investments made by DCF, and what can be learned?; and
3. To what extent does the level of government involved in the decision-making process affect the outcomes of activities that aim to strengthen climate resilience?

DCF investments made in three communes were selected as case studies, with research based on secondary sources available to the study team. The three DCF investments reflect the water management challenges facing rural communes in securing food security under changing climate patterns. A summary of the three DCF investments is provided in Table A3.1.

#### LIMITATIONS OF THE STUDY

The two main limitations of this country case study were the lack of opportunity to carry out primary research on the DCF investments, and the very small number of investments that could be examined with the resources available to the study. The three investments cannot be considered a representation sample of the DCF project carried out in the Mopti region but, rather, may provide some insights into the implementation opportunities and challenges such investments face. In addition, addressing the questions in the VfM framework required access to all relevant project documentation and assumed that proposal documents were of a sufficient quality. In practice, access to M&E reports for the sampled investments proved difficult and project documents varied in analytical scope, with most containing limited information.

**Table A3.1: Summary of Mali DCF investments in the Mopti Region**

CERCLE	COMMUNE	INVESTMENT	EXPECTED BENEFITS
Mopti	Sio	Support for rice production	<ul style="list-style-type: none"> <li>• Food self-sufficiency ensured</li> <li>• Economic wellbeing of the population improved</li> </ul>
Mopti	Konna	Rehabilitation of irrigated land	<ul style="list-style-type: none"> <li>• Increased sources of income and food security</li> <li>• Better management of water storage infrastructure</li> <li>• Raised awareness of the effects of climate change</li> </ul>
Douentza	Koubewel Koundia	Village solar-powered water supply	<ul style="list-style-type: none"> <li>• Improved water availability for humans and livestock</li> <li>• Improved hygiene, sanitation and health</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

### A3.3 Defining and measuring climate resilience

Nowhere in the national climate change documentation is climate resilience defined for the Malian context beyond acknowledging the economic, ecological and social dimensions of resilience. In 2011, the national policy on climate change was developed, together with an implementation strategy and action plan. In a context where the country is estimated to contribute 0.06% of global greenhouse gas emissions, and is projected to remain a net carbon sink until 2030 (due to its forestry investments), the national response to climate change is reflected in the second specific objective of the national policy: to 'increase the resilience of ecological systems, production systems and social systems to the effects of climate change through the integration of priority measures in the most vulnerable sectors'. This climate resilience goal focuses on five major themes: forest conservation, agricultural development, pastoral management, water management, and the development of renewable energy systems with improved energy efficiency. The three selected DCF investments support the national resilience priorities directed at agricultural and water management reforms.

Definitions of resilience at the DCF programme level in Mali (and Senegal) are heavily framed by the BRACED conceptual framework. BRACED defines resilience to climate change as the change in people's behaviour or circumstances that will make them better able to anticipate, avoid, plan for, cope with, recover from, and adapt to the shocks and stresses that they are likely to face in the foreseeable future;<sup>45</sup> climate resilience leads to food security, a key element of long-term wellbeing.<sup>46</sup> The DCF project in Mali contributes to the BRACED programme's key performance indicator, KPI 4, 'the number of people whose resilience has been improved as a result of investment support', where improvement in resilience is the DCF project's outcome in contributing to the impact of improved beneficiary wellbeing in the face of climate shocks and stresses.<sup>47</sup>

At the *cercle* level in the region of Mopti, climate resilience is grounded within the local context and the need to consider the vulnerabilities and adaptive capacities of households and communities to the effects of climate change. Through the DCF project, a participatory analysis of resilience and vulnerabilities was made using six participatory tools.<sup>48</sup> This enabled a baseline conceptualisation of individual resilience to climate change as a contributor to perceived wellbeing.

<sup>45</sup> Bahadur *et al.*, (2015). The 3As: tracking resilience across BRACED.

<sup>46</sup> Fisher *et al.*, (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>47</sup> Fisher *et al.*, (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>48</sup> (i) analysis of wellbeing and livelihood systems, (ii) construct livelihood systems, (iii) seasonal calendar, (iv) resilience scale, (v) ToC, (vi) identifying interventions, (vii) prioritisation, (Tools for resilience – BRACED).

Local people defined resilience in terms of dealing with climate hazards through tenacity or hard work.<sup>49</sup> Their perceived resilience to climate change is closely linked to their production system and possible recourse to alternative production systems. Households identified their financial resources as a very important factor in terms of securing resilience, where income is often obtained by selling agricultural goods, livestock or market-garden produce, or by moving out of rural areas to seek work.<sup>50</sup> More specifically, in the *cercles* of Mopti and Douentza, livelihoods are sustained through agriculture, livestock breeding and fishing (by order of most active participation). This sheds light on the complexities behind perceived resilience and speaks to the strong link between climate resilience, resource-based economies, and food security.

### A3.3.1 DEFINING THE ELIGIBILITY CRITERIA FOR INVESTMENT SELECTION

The prioritisation of DCF investments in communes is led by CCAs. Funding criteria used by all CCAs reflect the broad framing of climate resilience in terms of economic growth, environmental sustainability and social welfare (Box 1).<sup>51</sup> This is consistent with how climate resilience is being interpreted at the national level, as described above.

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#### Box 1: Investment criteria for DCF investments

- Focus on public goods, and support a large number of beneficiaries, especially women and young people;
- Enhance resilience to climate change (adaptation) and where possible, propose mitigation measures;
- Ensure a participatory approach in design, management, M&E;
- Meet local development priorities as well as national strategies and policies on sustainable development and climate change;
- Foster peace and strengthen social relations between actors;
- Not have a negative impact on the environment; and
- Provide a realistic and achievable work plan, and provide value for money.

Additional investment criteria represent a broad range of economic, social and environmental objectives.

Source: Final Evaluation Report on the DCF project in Mali and Senegal (2018).

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<sup>49</sup> Fisher *et al.*, (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>50</sup> Fisher *et al.*, (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>51</sup> Additional evaluation and eligibility criteria are listed in *Learnings from Decentralising Climate Funds in Mali*, p. 20.

### **A3.3.2 DEFINING THE SUCCESS CRITERIA OF INVESTMENT IMPLEMENTATION**

Each investment proposal includes a ToC linked to the DCF project's ToC and, in turn, is based on the results of a baseline resilience assessment carried out in the Mopti region. The process of the resilience assessment allowed a depiction of localised links between individual wellbeing and improved resilience, where wellbeing was further categorised into economic, environmental and social dimensions. The assessment enabled a systematic approach to identifying project inputs, outputs, outcomes and impact, and in turn the prioritisation of a portfolio of investments. The three investments selected for this study all have an impact that speaks to increased resilience to climate change leading to improved wellbeing of the beneficiaries. Each investment proposal also contains a set of indicators against which the investment's success is assessed. These success criteria are determined in a collaborative way using participatory planning tools and then monitored using a similar approach, with a continuous emphasis and focus on prioritising local perceptions of climate resilience.

### **A3.4 Documenting investment outcomes**

This section details the outcomes of the DCF investments in the three communes and explores how they are contributing to building the climate resilience of the beneficiary households and their communities. However, a key constraint to answering the question of effectiveness was the lack of M&E information available to the researchers at the investment level.

#### **A3.4.1 MOPTI CERCLE, SIO COMMUNE: SUPPORT FOR RICE PRODUCTION IN KOUNA VILLAGE**

##### **DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The \$61,000 DCF investment in the Sio commune in 2016 supported the rehabilitation of 15 hectares of rice paddy for the benefit of 1,200 people. Much of the investment went into construction works associated with water management. Improved growing conditions allowed for two crop harvests in the first year under the new system, as compared to one previously. In addition, crop residues provided a new source of fodder for cattle, thus saving on the purchase costs of animal feed. These early outputs suggest that the community's expected outcomes will be realised (Table A3.2).

**Table A3.2: Expected outcomes of DCF investment in Sio<sup>52</sup>**

EXPECTED OUTCOMES
<ul style="list-style-type: none"> <li>• Improved rice yield</li> <li>• Greater quantity of rice produced</li> <li>• Food security improved</li> <li>• Higher farmer incomes</li> <li>• Reduction in population exodus</li> <li>• Increase in animal fodder</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

### EFFECTIVENESS

One year after implementing the DCF investment, results from household surveys<sup>53</sup> already observe positive outcomes for both the community and households through higher rice yields. In turn, household members acknowledge that they are better able to deal with droughts and maintain their access to food, which in turn is expected to increase their wellbeing. In addition, there is anecdotal evidence that, in the first year of crop production, outward migration from the village was greatly reduced as compared to other villages in the commune, where the migration of young people in the dry season was notable.<sup>54</sup> The economic and social sustainability of the investment therefore appears likely, with a strong cash flow benefiting a wide group of people; the environmental sustainability depends, in part, on continuing water flows that are sufficient to irrigate plots at the appropriate times of the year.

### EQUITY

The management committee for this investment identified vulnerable farmers to participate in the improved rice paddy. Beneficiaries also included young farmers and a women's group that was able to use harvest surpluses to support other income-generating activities. Furthermore, access to crop residues provided an additional food resource for very poor women from other villages. These results may be associated with the management committee having both women and young people as members; of the 13 members on the management committee, three were women and five were young people.<sup>55</sup>

<sup>52</sup> Extracted from the ToC for the DCF project in Kouna.

<sup>53</sup> From household survey results, 2015, 2017 and 2018.

<sup>54</sup> NEF presentation on DCF in Mali. September 2018.

<sup>55</sup> Participation and engagement of vulnerable groups in devolved climate finance process in Mali and Senegal. Draft report. P. 32. Available at: [www.neareast.org/download/materials\\_center/Social\\_Inclusion\\_DCF\\_En.pdf](http://www.neareast.org/download/materials_center/Social_Inclusion_DCF_En.pdf)

### STRENGTHENED CLIMATE RESILIENCE

During the project identification phase of the investment, commune members identified their vulnerability to irregular rainfall. The DCF investment has helped increase farmers' capacities to cope with weak rainfall years (through irrigation) so that they can maintain or even increase rice productivity/yield and income, thus improving their resilience to climate change. However, even though there is evidence that rice yields have increased, the temporal factor must be considered in climate resilience, and because the investment has only matured for one year, this limits any direct attribution of investment outcomes to building climate resilience at the present.

### A3.4.2 MOPTI CERCLE, KONNA COMMUNE: REHABILITATION OF IRRIGATED LAND IN KONNA VILLAGE

#### DESCRIPTION OF THE INVESTMENT AND OUTCOMES

The 2016 DCF investment in Konna commune also supported irrigated rice production. The \$73,000 investment in improved water management of 41 hectares of rice paddy was expected to strengthen the resilience of 27,130 beneficiaries. The new water management system allows for the growing of additional seasonal crops, such as potatoes, thus diversifying and improving the food security of the beneficiaries. Similar to the village of Kouna, there is anecdotal evidence that rural migration has decreased due to increased employment opportunities associated with rice production. These early results suggest that the community's expectation of project outcomes will be attained (Table A3.3).

**Table A3.3: Expected outcomes of DCF investment in Konna**

EXPECTED OUTCOMES
<ul style="list-style-type: none"> <li>• Improved rice yield</li> <li>• Increased area of cultivation</li> <li>• Food security improved</li> <li>• Higher farmer incomes</li> <li>• Food diversification</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

### EFFECTIVENESS

Beneficiaries confirm that investment activities have been successfully completed. Increased rice production has been achieved and, as a result, the market price for rice has decreased, which has in turn increased household access to it.<sup>56</sup> This has enabled the community to share their rice across households after harvest. Food security has improved (although continuing support from family remittances suggests a fragile livelihood base for people living in Konna Village). Household surveys indicate that beneficiaries have also increased their knowledge of current climate threats and use climate information to make better decisions over their farming practices. In addition, temporary employment opportunities from the investment itself have contributed to an increase of income.

<sup>56</sup> Results from household survey 2018.

**EQUITY**

Increased stability (through a reduction in migration) and greater social cohesion in the village (through the creation of new job opportunities) have been achieved in the short-term, reflecting the social aims of the project. In addition, household surveys indicate that the whole community is benefiting from the investment through increased rice availability.

**STRENGTHENED CLIMATE RESILIENCE**

This investment's ToC is almost identical to the one developed for the Sio Commune, reflecting a similar approach to strengthening climate resilience. As with Sio, the short time horizon of the ToC somewhat constrains its utility as a theory that responds to a changing climate, where such change can be expected to occur over multiple years, rather than the next growing season. However, this also reflects local populations' short-term horizons when interpreting local priorities; urgent needs may dictate short-term coping strategies at the expense of longer term adaptation strategies.

### **A3.4.3 DOUENTZA CERCLE, KOUBEWEL KOUNDIA COMMUNE: SOLAR WATER SUPPLY IN TEMBA VILLAGE**

**DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The \$27,000 DCF investment was in support of the installation of a water supply system for the 1,600 residents of the village of Temba. Improved availability of drinking water was expected to bring strengthened community resilience to climate change and lead to an improvement in wellbeing. This investment was selected by the commune adaptation committee following community consultations, with the expected project outcomes of greater access to safe drinking water, improved health and livelihood diversification (Table A3.4).

**Table A3.4: Expected outcomes of DCF investment in Temba Village, Koubewel Koundia**

EXPECTED OUTCOMES
<ul style="list-style-type: none"> <li>• Improved water quality</li> <li>• Hygiene improvement</li> <li>• Improved access to water/reduced time fetching water</li> <li>• Livelihood diversification and increase in economic activity</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

**EFFECTIVENESS**

An underground water pump powered by photovoltaic panels, a storage tank, and water hydrants were installed through this investment, increasing the potable water supply in the village. In addition to limited M&E information of investment progress, evidence of investment attributable outputs to intended outcomes and impacts from a household perspective are currently limited due to the recent nature of this investment.<sup>57</sup>

<sup>57</sup> Lack of information from household survey 2018 – as this investment is from the extension phase of BRACED.

**EQUITY**

This investment had a strong gender dimension; in the village, the drudgery associated with the collection of water is a role undertaken by women and girls. The time taken to collect water has been greatly reduced, giving women the opportunity to invest in income-generating activities, such as market gardening. Also expected to benefit the more vulnerable members of the community, such as the very young and the very old, are fewer water-related diseases.

**STRENGTHENED CLIMATE RESILIENCE**

Prior to the DCF investment, water shortages in Temba during the dry season had led to surface water sources being used for drinking, resulting in an increase in the incidence of water-related diseases. With the installation of pumped ground water there is an expectation that the incidence of such disease will reduce. The investment's ToC identifies strengthened climate resilience as a consequence of better access to drinking water, improved living conditions and greater social cohesion.

**A3.5 The governance of delivering climate finance**

The DCF mechanism in Mali consists of the following institutional structure (Figure A3.1) to deliver an adaptation investment:

- **Decision-maker (DM):** The Regional Adaptation Committee has the role of deciding on the final selection of those proposals to benefit from DCF financing.<sup>58</sup> However, this decision-making rests on the earlier validation of proposals at each tier of the decentralisation system (both *cercle* and *commune*), and reflects proposal selection first made at the *commune* level through community consultations.
- **Implementing Entity (IE):**
  - *For commune investments (70% of DCF fund allocation):* the CCA coordinates, prioritises, selects and plans investments, conducts community outreach, monitors the progress of investments and supports the management of investment execution. A key principle of DCF mechanism is that it supports community-driven, bottom-up planning and it does so by giving the CCA the role of working with communities to develop and prioritise investments in local public goods that strengthen communities' adaptive capacities. The oversight and sign-off of each *commune* investment then cascades upwards through the respective *cercle* and regional committees. This has ensured that funding decisions are made in conformity with the decentralisation structures of the country.
  - *For cercle investments (20% of DCF fund allocation):* the Local Adaptation Committee (CLA), which prioritises *cercle*-level investments, selects the service providers and monitors the implementation of these investments.

<sup>58</sup> Participation and engagement of vulnerable groups in devolved climate finance (DCF) process in Mali and Senegal. (2019). P. 30.

- **Executing entity (EE):** service providers including community-based organisations, private sector contractors and village management committees.
- **Direct Beneficiaries (DB):** selected farmers and villagers in the respective communes.

**Figure A3.1: Mali DCF institutional structure in delivering commune-level investments, following the four actors of interest (Decision-maker, Implementing Entity, Executing Entity and Direct Beneficiaries)**



Source: Authors of Overseas Development Institute (ODI).

Overall, this system-based architecture has enabled:

- Regular communications between commune (CCA), *cercle* (CLA) and regional (Regional Adaptation Committee, or CRA) adaptation committees. The CLAs provide technical expertise to communes (with other government technical services), validate investment plans and monitor the progress of funded investments. The regional committee then authorises the disbursement of DCF funds and monitors investment expenditures.
- Supervision of the mainstreaming of climate change into investments from technical services, professional organisations and NGOs, including women and young people's groups.
- Assessment of costs associated with climate change investments, where NGOs, professional organisations, civil society and government agencies have provided support.

The TAMD<sup>59</sup> scorecards of the three investments also show evidence of:

- Increased awareness of climate change adaptation driven by the CCA and commune councillors. Investment planning processes have involved multi-stakeholder consultations, including with village authorities, elected officials, women's leaders, community agents and government agency staff. Stakeholder involvement in the investment process has led to increased awareness of climate change, and increased community involvement during the implementation of the investments.
- Successful alignment of mainstreaming climate change into local government policies, strategies, action plans and other planning tools, driven by NEF and local NGOs, which has strengthened the uptake of guidance material for the development of investment proposals and criteria. This has influenced further mainstreaming of climate change adaptation into the Economic, Social, and Cultural Development Five-year Plans (PDSECs) at the commune level.

### A3.6 Discussion

The DCF mechanism in Mali has allowed the concept of climate resilience to be mainstreamed across different entities involved in the policy, reporting and financial flows of these investments.

#### POLICY FLOWS

National policies and strategies in Mali have not outlined clear definitions and measures for climate resilience (nor climate adaptation). This raises the risk of inconsistency and misinterpretations of climate resilience at the different levels of governance: across policies, strategies, action plans, programmes and investments. However, the DCF mechanism has contributed to bridging the lack of a national definition of resilience whilst conforming to BRACED conceptual framework, and thus applying the KPI4 through local resilience assessments and through investment-level ToCs. The DCF investment's ToC aims to link how investments build resilience to climate change, with the ultimate goal of increased wellbeing.

Evidence from the three investments indicates that investments have contributed to improvements in the wellbeing of the direct beneficiaries, but it is hard to distinguish at this time whether they have contributed to strengthened household resilience to climate change as such outcomes take time to unfold beyond the BRACED project timelines. This reflects the complexity behind the practical conceptualisation of climate resilience, realising causal relationships between outputs and outcomes and therefore the contribution to intended impacts.

<sup>59</sup> TAMD: Tracking Adaptation and Measuring Development.

The current capacity of CCAs and communities has enabled the identification of adaptation actions that meet immediate short-term needs. Where further capacity appears to be needed is in the compilation of actions that will deliver benefits not only in the short term, but in the medium to long term. This will require:

- Continuous access to quality weather and climate information (both in the short and long term);
- Building capacities to understand and analyse current climate threats and hazards in different areas;
- Capacity to understand and analyse future climate risks under different climate scenarios, and incorporation into decision-making processes; and
- Cost estimates of long-term adaptation options.

#### REPORTING FLOWS

The present DCF reporting system is at the project level. Any data on the follow-up of local investment lies with the management committees at the commune level. It is expected that investment implementation follows the plan. However, no centralised data exist on how local communities follow up on individual investments. The DCF project recognises this as a gap, where resources for independent M&E were lacking. In addition, how results of investments feed into government institutional reporting systems is unknown.

At the project level, a range of tools (e.g. household surveys, TAMD institutional scorecards, resilience assessments and family portraits) provide data on the impact of the DCF project as a whole, where it evaluates overall investments impacts on resilience and food security as well on the capacity of local governments to manage climate risks across the 61 investments in 3 Cercles – Mopti, Douentza and Koro. Evidence of investment-specific attributable results is captured from a household perspective through household surveys conducted in 2015, 2017 and 2018, where the individual's perception of resilience and food security is observed over time. TAMD institutional scorecards were filled out collaboratively at the *cercle* level (by councillors and members of the CLA) and at the commune level (by councillors and members of the CCA). This approach to M&E supports a learning culture within communal and *cercle* institutions at a sufficiently early organisational stage that could help drive internal incentive systems (e.g. develop a results-based organisational culture).

Evidence to date from the three investments indicate that they have contributed to improvements in self-reported resilience and food security (as an indicator of wellbeing) of the direct beneficiaries. However, it is too early to tell whether they will temporarily or permanently lift individuals out of poverty.

### FINANCIAL FLOWS

Even though the DCF project has supported adaptation investments in response to communities that are vulnerable to climate shocks, there remains an overall lack of finance for adaptation investments. The high demand of identified public good investments cannot be met at present. For example, in the Konna Commune, only one out of the 36 identified investments was funded through the DCF project.<sup>60</sup> This puts a premium on the timeliness and accuracy of financial reporting. Communes and *cercles* (the local authorities) have a legal mandate to provide a service to establish investments in public goods and are highly dependent on funding from the National Support Fund for Local Authorities (FNACT) that is managed by ANICT and is a driving reason for DCF. This questions the amount of, and modality of, funding available from both government and donors over time, and in turn the risk of fungibility of funding away from climate adaptation.

The PDSECs (commune level) include an allocated government budget for climate mitigation and adaptation activities. However, it is known that PDSECs are implemented at a rate of 30-40% due to the lack of technical expertise, and most probably funding. This highlights the importance of continuous capacity-building to not only ensure the uptake of further climate investments but also to ensure the quality of such investments.<sup>61</sup>

### A3.7 Conclusions

This country case study has described the national and sub-national approaches to defining and measuring climate resilience, and through the examples of the three selected communal investments in the Mopti region of Mali, it has enabled an exploration of progress towards intended outcomes on household and community resilience to climate change, and corresponding governance and institutional arrangements of the DCF mechanism.

The definition and measurement of climate resilience is heavily influenced by the BRACED programme's definition of climate resilience, which follows the '3As', (the capacity to adapt to, anticipate and absorb climate extremes and disasters) a key element of long-term wellbeing,<sup>62</sup> as well as the baseline resilience assessment. The baseline resilience assessment ensured that the local context is captured, where for the areas of the three selected investments, in the cercles of Mopti and Douentza, resilience to climate change is captured through its close link to people's production system (agriculture, livestock breeding and fishing systems) and the possible recourse to alternative production systems, and increasing diversity of income generating activities. The definition of climate resilience in this context is driven by beneficiary perception. The investment and project ToCs enabled the identification of relevant indicators for investments.

<sup>60</sup> Results from Konna commune TAMD scorecards (2018).

<sup>61</sup> USAID Mali (2011). Democracy and Governance Assessment of Mali. P. 41.

<sup>62</sup> Fisher *et al.*, (2015). Baseline Report Decentralising Climate Funds (DCF).

Findings shows that the DCF investments in the region of Mopti followed a comprehensive planning process, using results from the baseline resilience assessment, which enabled the relevant design and uptake of the investments. More specifically, the DCF project contributed to the enabling environment, by (i) establishing CCAs in alignment with local government systems, (ii) the provision of multiple training events and guidance materials (including developing ToC, M&E systems, etc.), and (iii) the provision of backstop support throughout the project cycle of the investments from climate adaptation experts (IIED and NEF through the DCF Consortium).

Clear outcomes include the success of the high participation of communities during the identification and planning of investments. Such participation has increased the awareness of adaptation benefits, prioritised local needs and increased the ownership over plans.<sup>63</sup> In addition, because the DCF project uses communes, cercles and regions as the framework for its interventions, it has developed a system for planning and financing adaptation to climate change that makes sense in this national context, and hence has the potential to be replicated in other regions of Mali.<sup>64</sup>

With the funding for the current phase of the project now over, the DCF mechanism has developed a framework that can channel funding through partnering with ANICT, and has supported ANICT to seek accreditation to the GCF to access additional international climate funds. The sustainability of the DCF mechanism in Mali will rely on accessing additional finance (GCF funding or other financial support from the national government and/or international partners) and continuing to build the capacity of partners at each level of decentralisation.

<sup>63</sup> [www.neareast.org/download/materials\\_center/Social\\_Inclusion\\_DCF\\_En.pdf](http://www.neareast.org/download/materials_center/Social_Inclusion_DCF_En.pdf)

<sup>64</sup> Bonis Charancle, J-M, Laubin, V and Rebelle, B. (2018). Final evaluation report on the DCF project in Mali and Senegal. BRACED internal report.

## Annex 4. Early outcomes of climate finance in Senegal: experiences from three DCF investments

### A4.1 Introduction

Food insecurity is concentrated in three regions of Senegal, including Kaffrine, which has the weakest food diversity score<sup>65</sup> and where 64% of households live below the national poverty line. Rural livelihood systems in Kaffrine are highly sensitive to the weather given their dependence on rainfall. This region faces irregular annual rainfall patterns during the rainy season (June to July), an erratic start to the rainy season, and a long dry season (of eight to nine months) that can affect crop production.<sup>66</sup> Climate change is projected to have a major impact on the region, with an expected 30% decline in agricultural production by 2025.<sup>67</sup>

#### THE DCF MECHANISM IN SENEGAL

The UK-funded DCF project worked with 36 communes in the Kaffrine Region of Senegal between 2015 and 2018 to enable them to (i) access climate funds to finance local adaptation activities; and (ii) build climate resilience into their local planning and budgeting systems. The overall aim was to contribute to the following vision: 'More effective climate adaptation planning and finance by local governments in Mali and Senegal will improve communities' resilience to climate change'.<sup>68</sup> The introduction of the DCF mechanism in Mali was supported by DFID through the BRACED programme; the DCF project is managed by NEF, and implemented by NEF and its partners, IIED and IED Afrique.<sup>69</sup>

In October 2017, a GEF project with funding from the Least Developed Countries Fund was approved for implementation through the Senegalese Ministry of Environment and Sustainable Development.<sup>70</sup> At a total cost of \$39.6 million, the project aims to build on the experience of the DCF mechanism and support sustainable community financing and adaptation mechanisms in communes. This appears to represent an opportunity for the DCF mechanism to be scaled-up, linked to major reforms in the country's decentralisation policy that have been underway since 2014.<sup>71</sup>

<sup>65</sup> [www.unccllearn.org/sites/default/files/inventory/wfp10.pdf](http://www.unccllearn.org/sites/default/files/inventory/wfp10.pdf)

<sup>66</sup> [www.unccllearn.org/sites/default/files/inventory/wfp10.pdf](http://www.unccllearn.org/sites/default/files/inventory/wfp10.pdf)

<sup>67</sup> [www.neareast.org/download/materials\\_center/Decentralisation-Senegal.pdf](http://www.neareast.org/download/materials_center/Decentralisation-Senegal.pdf)

<sup>68</sup> Learnings from Decentralising Climate Funds in Senegal, (2019).

<sup>69</sup> [www.iedafrique.org/](http://www.iedafrique.org/)

<sup>70</sup> [www.thegef.org/project/promoting-innovative-finance-and-community-based-adaptation-communes-surrounding-community](http://www.thegef.org/project/promoting-innovative-finance-and-community-based-adaptation-communes-surrounding-community)

<sup>71</sup> Learning from Decentralising Climate Funds in Senegal, (2019). The reform is known as Decentralisation Act 3 (Act 3 de la Decentralisation) and promotes the territorialisation of public policy.

The implementation approach of the DCF project in the four departments of the Kaffrine region is based on five fundamental principles:<sup>72</sup> La participation et la responsabilisation des bénéficiaires des projets à toutes les étapes de mise en œuvre des investissements, à travers divers mécanismes (réunion de partage, forum communautaire, comité de suivi, etc.); SSL'ancrage institutionnel fort des fonds locaux dans les systèmes nationaux et locaux de décentralisation;

- Le partenariat avec les institutions ou structures étatiques pérennes, notamment le Programme National de Développement Local (PNDL) et l'Agence Régionale de Développement (ARD) de Kaffrine. **Participatory community planning** – ensuring communities are involved in the decision-making process, including during the implementation of investments. Also, that local knowledge is used and, in turn, accountability and ownership are encouraged.
- **Social inclusion** – capacity-building processes for all stakeholders are supported to ensure the sustainability of the DCF mechanism. In Senegal, community forums, involving crop and livestock farmers, traders, craft-people, women, young people and the elderly, met for investment decisions.
- **Embedding and strengthening the decentralisation system** – the DCF mechanism aligns with the existing decentralisation structures, strengthening them through innovations and incorporating community priorities – all through the Senegal Decentralisation Act 3. The DCF project also successfully established partnerships with state institutions and structures, including the PNDL and the Regional Development Agency (ARD) of Kaffrine, therefore contributing to the strong institutional anchoring of climate funds in national and local systems of decentralisation via the Local Development Fund of the Public Treasury.
- **Emphasis on public goods** – to reinforce, through investments, social cohesion and equity in access to opportunities to build climate change resilience. By design, investments exhibit two properties: being non-rivalry and non-exclusion public goods.
- **Flexible and iterative management** – taking into account different sociopolitical environments, through tools and practices, the local planning system is improved to build climate resilience from lessons learned from the different phases of the DCF project.

<sup>72</sup> Learnings from Decentralising Climate Funds in Senegal. (2019). P. 11.

Over the four-year period, 2015 to 2018, the BRACED-funded DCF project produced the following results:

- 36 collectivités locales, sur les 37 que compte la région de Kaffrine, ont bénéficié de fonds du DFC et initié des projets d'adaptation; 36 local governments benefited from DCF funding and initiated beneficiary-defined adaptation projects;
- 65 projets ont été financés, tout en prenant en compte des projets ciblant directement les femmes et les jeunes; 75 investments were funded, including projects targeting women and young people;
- 75 investissements réalisés dans des domaines divers et variés notamment l'agriculture, l'élevage, l'éducation, l'environnement et l'assainissement, l'accès à l'eau, etc. Nearly 900 million FCFA (approximately \$1.5 million) of investments were made for the benefit of local communities, and hundreds of jobs created;
- L'institutionnalisation de l'accès à l'information climatique à travers l'instauration de forum annuel sur la prévision saisonnière dans les quatre départements de la région de Kaffrine, en collaboration l'Agence Nationale l'Aviation Civile et de la Météorologie (ANACIM); The institutionalisation of access to climate information through the establishment of forums (15 in total) on seasonal forecasting in the four departments of the Kaffrine region, in collaboration with the National Agency for Civil Aviation and Meteorology (ANACIM);<sup>73</sup> and
- Une quarantaine de comités de gestion mis en place et formés et des comités départementaux et régionaux d'adaptation ont été installés pour favoriser une gouvernance participative des questions du changement climatique dans la région de Kaffrine. 40 established and trained management committees as well as departmental and regional adaptation committees were set up to promote participatory governance of climate change issues in the Kaffrine region.

#### **A4.2 Study objectives and selection of DCF investment projects**

This country study addresses the three study-wide questions:

1. How is climate resilience defined and measured at the national and sub-national levels?
2. What outcomes have been achieved by investments made by DCF, and what can be learned?
3. To what extent does the level of government involved in the decision-making process affect the outcomes of activities that aim to strengthen climate resilience?

<sup>73</sup> Learnings from Decentralising Climate Funds in Senegal. (2019). P. 24.

Three DCF investments were selected as case studies. They reflect the DCF focus on a community-driven understanding of climate change adaptation and their specific needs: 'local people believe that improving living conditions to-day will strengthen their resilience tomorrow'.<sup>74</sup> A summary of the expected benefits arising from the three DCF investments is provided in Table A4.1.

**Table A4.1: Summary of Senegal DCF investments**

DÉPARTEMENT	COMMUNE	INVESTMENT	EXPECTED BENEFITS
Kaffrine	Boulel	Environmental improvements	<ul style="list-style-type: none"> <li>• Human health improved</li> <li>• Economic wellbeing of the population improved</li> </ul>
Kaffrine	Boulel	Rehabilitation of Khéndé water pan	<ul style="list-style-type: none"> <li>• Greater livestock production</li> <li>• Reduced livestock mortality</li> <li>• Increased women's incomes</li> </ul>
Birkelane	Keur Mboucki	Construction of women's centre	<ul style="list-style-type: none"> <li>• Greater social cohesion among women</li> <li>• Improved economic opportunities for women</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

#### LIMITATIONS OF THE STUDY

As was the case for Mali, resource limitations meant there was a lack of opportunity to carry out primary research on the DCF investments and, therefore, research was limited to secondary source material available to the study team. In addition, addressing the questions in the VfM framework required access to cost information, and assumed that proposal documents were of a sufficient quality. In practice access to investment-level documents, including M&E and budget expenditure information for the sampled investments, proved difficult, with most containing very limited information. The subsequent analysis is therefore exploratory in nature, taking a first-look at progress being made at the investment level. The three investments are not intended to be a representative sample of the DCF country project carried out in the region of Kaffrine, and findings should be considered in this light.

### A4.3 Defining climate resilience

At the national level, Senegal prepared a comprehensive National Adaptation Programme of Action as early as 2006.<sup>75</sup> This document, written by the Ministry of Environment and Nature Protection, proposed a series of adaptation investments in the agriculture, water resources and coastal zone sectors that

<sup>74</sup> Bonis Charancle, J-M, Laubin, V. and Rebelle, B. (2018) Final evaluation report on the DCF project in Mali and Senegal. P. 35.

<sup>75</sup> <https://unfccc.int/resource/docs/napa/seno1f.pdf>

responded to vulnerability assessments made by the NAPA drafting team. The IPCC definition of vulnerability, which recognises 'a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt', was taken as the starting point for the analysis.<sup>76</sup> The country's Intended Nationally Determined Contribution (INDC) was then submitted to the UNFCCC in September 2015, listing a range of adaptation actions across eight sectors. A definition of climate resilience is absent in the INDC, and since then there appears to have been limited national exploration of the meaning of climate adaptation or resilience. However, the following is evident: in the INDC, adaptation is a national concern and adaptation goals are multi-sectoral with objectives for 2016 to 2035 in the biodiversity, coastal, water resources, fishing, agriculture, culture, flooding and health sectors.<sup>77</sup>

The BRACED programme defines climate resilience as the change in people's behaviour or circumstances that will make them better able to anticipate, avoid, plan for, cope with, recover from, and adapt to the shocks and stresses that they are likely to face in the foreseeable future<sup>78</sup> – climate resilience to food security, a key element of long-term wellbeing.<sup>79</sup> At project level, and as in Mali, the DCF Senegal project contributes to the programme's KPI 4 (outcome), 'the number of people whose resilience has been improved as a result of investment support': improvement in resilience is the DCF project's outcome and therefore a contribution to the impact of improved beneficiary wellbeing in the face of climate shocks and stresses.<sup>80</sup>

At the local level, the three selected DCF investments address vulnerabilities to climate change identified by the beneficiary groups in the respective communes, as per the baseline resilience assessment completed in the Kaffrine region. In order to perceive resilience at the individual beneficiary level, the resilience assessment used the following definitions in accordance with the local context:<sup>81</sup>

- **Adaptation** is an adjustment in natural or human systems in response to current or expected climate change, or their effects, that mitigates damage or enhances its benefits (IPCC), and;
- **Resilience** is the ability of an ecosystem or species to recover normal functioning or development after suffering trauma as a result of a shock.

As with the other DCF country mechanisms, climate resilience at the commune level is grounded within a local context that considers the vulnerabilities and adaptive capacities of households and communities to the impacts of climate change. Explicit climate adaptation strategies before the DCF project mainly responded to the current climate variability and extremes. The DCF project has

<sup>76</sup> [www.ipcc-data.org/guidelines/pages/glossary/glossary\\_uv.html](http://www.ipcc-data.org/guidelines/pages/glossary/glossary_uv.html)

<sup>77</sup> Senegal INDC (September 2015), for 2016–2035, UNFCCC, INDCs.

<sup>78</sup> Bahadur *et al.* (2015). The 3As: tracking resilience across BRACED.

<sup>79</sup> Fisher *et al.* (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>80</sup> Fisher *et al.* (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>81</sup> BRACED, Kaffrine baseline resilience assessment report, (2015).

since included guidance and capacity-building during the process of prioritising investments, which supports the notion of using data on potential future changes in climate to account for potential future climate risks and the selection of adaptation activities.<sup>82</sup> Through the project, a participatory analysis of resilience and vulnerabilities (baseline resilience assessment) was undertaken using three participatory tools: the vulnerability matrix, the participatory diagnostic grid, and the 3As framework from the BRACED programme. The '3As' make up BRACED's climate resilience definition: 'the capacity to adapt to, anticipate and absorb climate extremes and disasters'. Guidance is also provided under the BRACED programme on how to identify and develop resilience indicators that measure project outcomes: 'resilience to climatic shocks and constraints is considered as a composite attribute that each individual possesses, representing their ability to anticipate, avoid, plan for, cope with, recover from and adapt to climate-related shocks and stresses. Enhanced resilience signifies that an individual is better able to maintain or improve their wellbeing despite such shocks and tensions'.<sup>83</sup>

Overall, at the local level, the assessment has enabled a baseline conceptualisation of individual resilience to climate change as a contributor to perceived wellbeing. Local people's resilience to climate change is closely linked to their production system and possible recourse to alternative production systems and diverse outcomes and incomes.<sup>84</sup> Households have identified that their financial resources are a very important factor in resilience, where incomes are often obtained by selling agricultural goods, livestock or market-gardening produce, or by moving out of rural areas to seek work.<sup>85</sup> More specifically, in Kaffrine, it is through the agriculture, livestock breeding and forestry systems that resilience to climate change is a priority and, in turn, can positively affect corresponding livelihoods.<sup>86</sup> In addition, two strong factors of resilience for women in the four *départements* of Kaffrine are employment and obtaining agricultural yields, where the availability of agricultural land is the main asset among women that have the highest levels of resilience.<sup>87</sup> As in the case of Mali, this sheds light on the complexities behind perceived resilience, and on the strong link between climate resilience and food security.

A self-assessment of household resilience in Kaffrine, from household questionnaires, found that income diversification displayed a positive relationship with self-assessed resilience.<sup>88</sup> Income diversification was associated with proximity to larger settlements, where employment opportunities are more likely than in remote rural areas. Knowledge gained from investment training and new physical assets – be it environmental management or the

<sup>82</sup> Fisher *et al.* (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>83</sup> BRACED. [www.odi.org/projects/2808-building-resilience-and-adaptation-climate-extremes-and-disasters-braced](http://www.odi.org/projects/2808-building-resilience-and-adaptation-climate-extremes-and-disasters-braced)

<sup>84</sup> Fisher *et al.* (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>85</sup> Fisher *et al.* (2015). Baseline Report Decentralising Climate Funds (DCF).

<sup>86</sup> Kaffrine, baseline risk assessment report, (2015).

<sup>87</sup> Fisher *et al.* (2016) Baseline Report Decentralising Climate Funds (DCF).

<sup>88</sup> Beauchamp *et al.* (2019). Resilience from the ground up: how are local resilience perceptions and global frameworks aligned?

creation of meeting spaces for vulnerable groups (such as women) – have strengthened social cohesion and contributed to the facilitation of further income-generating activities, and thereby would appear to be consistent with the goal of strengthening climate resilience.

#### **DEFINING THE ELIGIBILITY CRITERIA FOR INVESTMENT SELECTION**

The prioritisation of investments under the DCF mechanism in Senegal is led by the Departmental Adaptation Committees (CDAs). An elaborated list (updated throughout the three rounds of the DCF project), consisting of four strategic eligibility criteria and evaluation criteria, is used by all CDAs to select investments (Box 2). These reflect the broad framing of climate resilience in terms of economic growth, environmental sustainability and social welfare.<sup>89</sup> However, the concept of climate resilience is not further elaborated upon in these criteria, speaking only to strengthening 'the resilience of communities to climate change'.

#### **DEFINING THE SUCCESS CRITERIA OF INVESTMENT IMPLEMENTATION**

Each investment proposal includes a ToC that builds on the results of the Kaffrine baseline risk assessment. This resilience assessment allowed a depiction of localised links between individual wellbeing and improved resilience. More specifically, the investment impacts of the three investments of interest in this study speak to the vulnerability factors identified from the vulnerability matrix completed for each of the priority sectors that contribute to building climate resilience: agriculture, livestock breeding and forestry. Also, the 3As framework has enabled a systematic identification of inputs, outputs, outcomes and impact, and in turn a strategic approach to select relevant investments with strong socioeconomic impacts by considering: (i) existing opportunities, (ii) constraints and (iii) initiatives underway.<sup>90</sup> This is aligned to the DCF project's ToC, feeding into the outcome of increased climate resilience that contributes to improved wellbeing (impact).

In addition, investment proposals include an M&E plan to track progress. Each investment proposal contains a set of indicators against which the investment's success is assessed. The DCF design for these success criteria is to be determined in a collaborative way using participatory planning tools, then monitored using a similar approach.

<sup>89</sup> [www.neareast.org/download/materials\\_center/DCF-infographic-SEN-ENG.pdf](http://www.neareast.org/download/materials_center/DCF-infographic-SEN-ENG.pdf)

<sup>90</sup> Kaffrine, baseline risk assessment report, (2015).

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**Box 2: Investment criteria for DCF investments in Senegal**

The strategic eligibility criteria for BRACEDX (round 3) includes the following four factors for DCF investments in Senegal:

1. The project is the result of a community forum and reflects the priority needs of communities at the grassroots level.
2. The project strengthens the resilience of communities to climate change.
3. For CBOs, the project is free to focus on public goods, common, collective property, club property, etc. (except private property), and needs to take into account the gender dimension.
4. The project will be a part of local development priorities.

Technical evaluation criteria, provides a scoring across ten factors:

(i) background and justification of investment, (ii) realistic methodology, (iii) clear and well-defined goals, (iv) activities that are well-defined and feasibly on time (up to five months), (v) beneficiaries, including gender considerations, (vi) investment governance strategy, (vii) partnerships, (viii) sustainability strategy, (ix) workplan, and (x) a consistent and proportionate budget relative to planned activities.

These DCF investment criteria represent a broad range of economic, social and environmental objectives, having evolved throughout the three phases of the DCF project.

Source: Final Evaluation Report on the DCF project in Mali and Senegal (2018).

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Environmental screening assesses the potential impacts of each DCF investment. Environmental issues must be taken into account during identification, design, implementation and monitoring through an environmental assessment checklist. This identifies environmental issues and actions to minimise risks and maximise benefits and opportunities. This activity guides how monitoring must be carried out throughout the project cycle in order to strengthen the potential of the project to reduce the impacts of climate change.<sup>91</sup>

<sup>91</sup> DFID (nd). Environmental Screening Checklist: Guidance for external users. Available at: [http://jncc.defra.gov.uk/pdf/DFID\\_Environmental\\_Screening\\_Checklist.pdf](http://jncc.defra.gov.uk/pdf/DFID_Environmental_Screening_Checklist.pdf) (accessed 27/12/2018).

## A4.4 Documenting project outcomes

This section details the outcomes of the three DCF investments and explores how they are contributing to building the climate resilience of the beneficiary households and the broader community. However, a key constraint to answering the question of effectiveness and equity (regarding the equitable spread of finance) was a lack of M&E information at the investment level available to the researchers. Equity is captured from results that relate to an equitable spread of the benefits with considerations of gender and the youth.

### A4.4.1 KAFFRINE DÉPARTEMENT, BOULEL COMMUNE: ENVIRONMENTAL IMPROVEMENTS

#### DESCRIPTION OF THE INVESTMENT AND OUTCOMES

The \$34,000 DCF investment in the Boulel Commune in 2017 focused on garbage collection and the recycling of plastic waste. Prior to the project, there was no waste removal in the commune, so this public investment aimed to improve environmental conditions. Garbage collection was also seen as a strategy to diversify income in this rural agricultural setting (through the marketing of plastic waste), with communal action leading to greater social cohesion among residents. The expected benefits from the project are listed in Table A4.2.

**Table A4.2: Expected outcomes of DCF investment in Boulel**

EXPECTED OUTCOMES
<ul style="list-style-type: none"> <li>• Improved environmental conditions</li> <li>• Increased income for beneficiaries</li> <li>• Greater environmental awareness</li> <li>• Improved human health</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

#### EFFECTIVENESS

This DCF investment was carried out by 16 local groups, including sports and cultural associations with an interest in environmental protection, thus engendering social cohesion. This broad engagement aimed to secure the involvement of the most effective groups to deliver the garbage collection service. Household survey results show an observed reduction in insect nuisance (with possible health benefits).

#### EQUITY

According to household surveys conducted during the DCF project, the community is already benefitting from better health and the creation of jobs for both women and the youth.

#### STRENGTHENED CLIMATE RESILIENCE

This environment project fulfils the broad investment criteria for DCF investments and is consistent with a ToC that links climate resilience to improved living conditions. Survey results show that households now experience less waste being blown back into their households from strong winds.

#### **A4.4.2 KAFFRINE DÉPARTEMENT, BOULEL COMMUNE: REHABILITATION OF THE KHENDÉ WATER PAN**

##### **DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The 760km<sup>2</sup> that makes up the Boulel Commune is subject to highly uncertain rainfall, affecting agricultural and livestock yields. Under such conditions, people's livelihoods depend on sustainable water management. The rehabilitation of the Khéndé water pan in late 2018, at a cost of \$35,000, aimed to improve water availability for livestock and to create a new economic opportunity for women through the development of market gardening. These aims were achieved by carrying out works to the existing water pan to create two compartments: one for the watering of livestock and one for supplying water for vegetable cultivation.

**Table A4.3: Expected outcomes of DCF investment in Khendé**

EXPECTED OUTCOMES
<ul style="list-style-type: none"> <li>• Increased water availability throughout the year</li> <li>• Greater dairy and meat production</li> <li>• Lower livestock mortality through a reduction in animal diseases</li> <li>• Increased income for women market gardeners</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

##### **EFFECTIVENESS**

More effective water management was achieved by the rehabilitation of the water pan, allowing for controlled water usage over the course of the year.

##### **EQUITY**

This investment had a strong gender focus, with the development of market gardening offering new economic opportunities for women.

##### **STRENGTHENED CLIMATE RESILIENCE**

The investment ToC makes the case that improvements in the availability of water will increase livestock production and therefore farmers' incomes, and more importantly ensure livestock production even in the face of rainfall variability. The improved water management has also provided for new income-generating activities that can continue in the dry season, improving the resilience of the beneficiaries in the face of climate change.

#### **A4.4.3 BIRKELANE DÉPARTEMENT, KEUR MBOUCKI COMMUNE: CONSTRUCTION OF A WOMEN'S CENTRE**

##### **DESCRIPTION OF THE INVESTMENT AND OUTCOMES**

The construction of a women's centre in 2017, with support from a DCF investment of \$30,000, had the aim of empowering over 1,000 women in the commune in an effort to reduce their vulnerability to climate change (Table A4.4). The centre would allow for awareness-raising, training and the implementation of income-generating activities.

**Table A4.4: Expected outcomes of DCF investment in Keur Mboucki**

EXPECTED OUTCOMES
<ul style="list-style-type: none"> <li>• Women's empowerment</li> <li>• Strengthened social cohesion</li> </ul>

Source: Authors of Overseas Development Institute (ODI).

#### EFFECTIVENESS

The investment in the construction of a physical asset for the community appears a credible strategy for putting a trajectory towards strengthened climate resilience in place; training and awareness-raising of a vulnerable beneficiary group can be effectively achieved through being sited at one location. However, household surveys to-date do not provide evidence of attributable investment outcomes.

#### EQUITY

The gender dimension of this investment was its driving force, with the intent of improving the resilience of women and girls in the face of climate shocks. Lack of empowerment among women, including difficulty of accessing credit, was the rationale behind making this investment in public infrastructure.

#### STRENGTHENED CLIMATE RESILIENCE

The intended impact of this investment is the contribution to the increased financial empowerment of women, which directly satisfies the overall approach of increasing the welfare of beneficiaries. However, household survey results to-date do not provide evidence that the training and awareness raising has increased women's resilience to climate change and, in turn, to increased financial empowerment.

### A4.5 The governance of delivering climate finance

The DCF mechanism for commune investments made by the DCF in Senegal consists of the following institutional structure (Figure A4.1):

- Decision-maker (DM) with authority to approve funding for DCF proposals: Regional Adaptation Committee (CRA) – this is a sub-committee of the regional committee on development coordination, harmonisation and monitoring for the Kaffrine region. The CRA approves the investment selection made by department adaptation committees (CDAs), ensuring that the collaborative investments are consistent and territorially balanced;<sup>92</sup>
- Implementing Entity (IE): Department Adaptation Committee (CDA) – supports the dissemination of calls for investment, provides technical support and the M&E of investment implementation, supports public procurement and contracting process between beneficiaries and service providers, undertakes performance contracts with beneficiaries, and influences local planning systems to take into account resilience and climate funding;

<sup>92</sup> Learning Lessons from Decentralised Climate Funds in Senegal. (2019). P. 22, Table 2.

- Executing entity (EE): Investment Management Committee (at the investment level, including direct beneficiaries and service providers); and
- Direct Beneficiaries (DB): selected farmers and villagers in the respective communes.

Local authorities in each commune coordinate the identification and planning of climate adaptation options with local village communities. Proposals are submitted to the CDAs, where the Proposal Selection Committee carries out the investment selection process, seeking technical assistance and consultations from IED Afrique to support and improve proposals and ensure that the DCF selection criteria have been followed: 'Technical advice often passes as final decisions, which normally should be made by the selection committee'.<sup>93</sup> The final proposal validation is then conducted by the CRA.

Funding decisions are made in conformity with the decentralisation structures of Senegal, using the national public accounts regime and a partnership agreement with the PNDL. This agreement allows for project funds to be managed as part of the PNDL's funding arrangements for local communities.<sup>94</sup> The DCF project manager, IED Afrique, as well as providing technical assistance during the pre-selection and selection of investments process, signs-off investment funds. From the DCF project partnership with the PNDL, funds are channelled to local authorities, as budget support, through the Local Development Fund (FDL), via the special Public Treasury accounts.<sup>95</sup> To-date, the establishment and running costs of the four CDAs have been met from the DCF project funds managed by IED Afrique.

The establishment of this institutional structure, including the CDAs at the departmental level, and the successful partnership with the PNDL, has helped kick-start climate adaptation actions through community-led identification, planning, implementation and the M&E of relevant investments. The 2018 national guide to PNDL is expected to ensure the systematic integration of climate considerations into communal development plans (CDPs). The guide is currently being tested in several communes, including two in the Kaffrine region.<sup>96</sup>

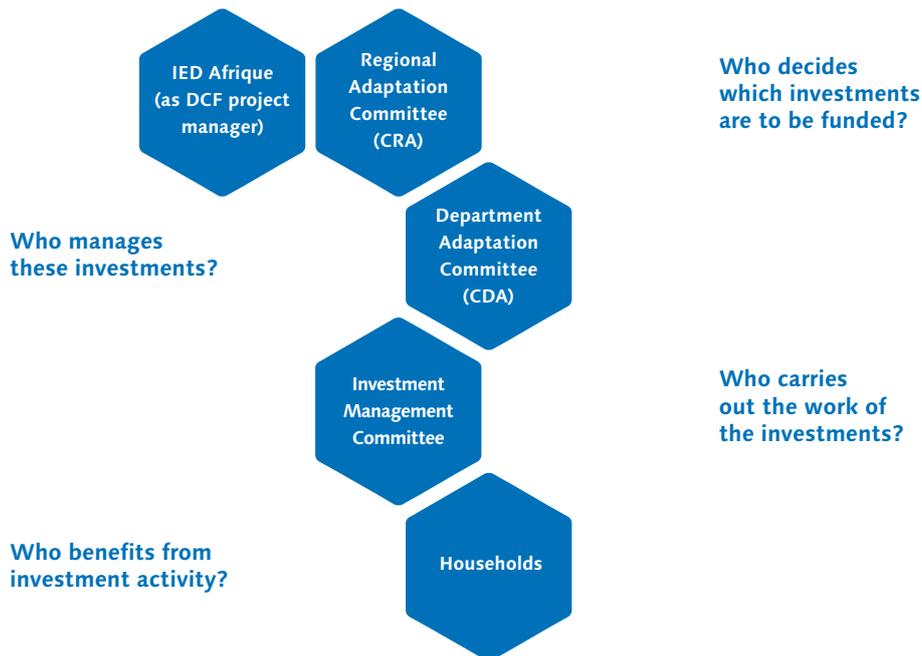
<sup>93</sup> Social Inclusion Report (Jan 2019). P. 19.

<sup>94</sup> NEF (2015). Decentralising climate adaptation funds in Senegal.

<sup>95</sup> Learnings from Decentralising Climate Finance in Senegal. (2019). P. 18.

<sup>96</sup> Learnings from Decentralising Climate Funds in Senegal. (2019). P. 34.

**Figure A4.1: Senegal DCF structure in delivering commune-level investments**



Source: Authors of Overseas Development Institute (ODI).

The ARD of Kaffrine has the mission to support local authority initiatives in local development, coordinating the implementation of activities of the PNDL. It is under the technical supervision of the Ministry of Spatial Planning and Local Government, and the financial supervision of the Ministry of Economy and Finance. This mechanism has led to both successful and challenging results, where the following insights are gained from TAMD scorecard results of the three investments of interest in this study:

**BENEFITS:**

- Local authorities at the commune level have established stronger relationships with the ARD through more regular communication, which in turn takes into account multi-sector coordination.
- Given that prior to the DCF pilot project there was no designated structure to coordinate adaptation actions, the establishment of the CDAs within existing departmental monitoring and harmonisation committees has strengthened such coordination, particularly with the communal environment committees.

**CHALLENGES:**

- Ongoing knowledge capacity of climate adaptation across actors involved in investments (commune to village levels) is a recognised weakness, due to a lack of local expertise.
- There is no long-term funding to support this institutional coordination mechanism beyond the current support of the DCF project.

## A4.6 Discussion

The DCF mechanism in Senegal has allowed the concept of climate resilience to be mainstreamed across different entities involved in the policy, reporting and financial flows of these investments.

### POLICY FLOWS

Many documents have been produced at the sub-national level in support of the national climate change policy. Regional Integrated Development Plans (PRDI), Regional Spatial Plans and Departmental Development Plans all offer scope to make links to the national climate change policy. However, the quality of this integration and the coherence between regional- and *département*-level planning processes is not yet strong.

At the commune level, CDPs include environmental considerations, where the local context is considered. However, it is apparent that even though investments have positively contributed to environmental factors, there seems to be a lack of capacity to understand the link between climate change and environmental considerations, according to the TAMD scorecard results of the three investments. This has the potential to be improved by current efforts in Senegal to test a new national guide for local development planning that will help communes integrate climate change into their development plans.<sup>97</sup> Grassroots ownership of each DCF investment (commune level) has also motivated the management committees to become the architects of their own development by transforming their priority needs for adaptation and resilience to the adverse effects of climate change into concrete proposals. With the experience gained with DCF, they are now better equipped to mobilise climate funds and to manage them effectively.<sup>98</sup>

### REPORTING FLOWS

As was found in Mali, the present DCF reporting system is at the project-level (not at the investment-level). At the scale of individual investments, the M&E system in place is focused around technical checks made by the ARD technical services, with follow-up by IED-Afrique. Any data on the follow-up on local investment lies with the management committees at commune level. It is expected that investment implementation follows the plan. So, whilst there is technical M&E, no centralised data exist on how local communities follow up on individual investments. The DCF project recognises this as a gap, where resources for independent M&E was lacking. In addition, how results of investments feed into government institutional reporting systems is unknown.

### FINANCIAL FLOWS

A strength of the Senegal DCF mechanism is its use of the national public finance system, established to support the country's decentralisation process. This is an example of best practice for climate finance, minimising the inefficiencies associated with the creation of parallel finance flows. The experience of using PNDL funding is considered relevant as a model for the DCF approach. This

<sup>97</sup> Learnings from Decentralised Climate Funds Senegal. (2019). P. 20.

<sup>98</sup> Social Protection Report (2019). P. 25.

is particularly significant due to its 15 years of experience in supporting local authorities in the funding and implementation of development projects through its FDL.<sup>99</sup> Nonetheless, with the BRACED programme now over, there remains the question of how to create sustainable sources of funding over time from both government and donors to build on this pilot.

#### **A4.7 Conclusions**

This country case study has described the national and sub-national approaches to defining and measuring climate resilience. Through the examples of the three selected communal investments, it has enabled an exploration of progress towards intended outcomes on household and community resilience to climate change, and corresponding governance and institutional arrangements of the DCF mechanism. The DCF mechanism in Senegal demonstrates a responsiveness to beneficiary-determined priorities for public goods investments that aim to strengthen climate resilience. The baseline resilience assessment enabled a depiction of the localised links between individual wellbeing and improved resilience, with priorities identified in the agriculture, livestock breeding and forestry systems to address immediate needs. Whilst these investments positively affect livelihoods, insufficient time has passed to demonstrate their contribution to a sustained improved level of climate resilience.

The DCF mechanism has had a crucial role in advancing local capacities through system-based interventions to (i) build understanding of the concepts of climate resilience and adaptation, and (ii) pilot investments to advance a practical understanding of these concepts. However, there remains a gap in M&E information at the investment level, which constrains analysis into the effectiveness and equity outcomes of individual investments.

In terms of governance, an overriding condition for the efficient delivery of climate finance to local communities is to recognise the national administrative structures through which decentralisation is delivered. Climate finance that passes through government systems has to be moulded to fit this architecture, just as it has been done in Senegal, to give any prospect for the sustainability of funded actions. Continuing international support for the DCF mechanism – as suggested in the new GEF project referenced earlier – offers important opportunities for further iterations of the mechanism.

A national multi-stakeholder platform has been established with the purpose of representing, coordinating and monitoring DCF's achievements and innovations. This national platform, created by the DCF Consortium through IED Afrique, provides an opportunity for dialogue and synergy between stakeholders involved in climate change planning and implementation. In the context of the DCF project, the platform has opened a debate on the review of the PNDL national planning guide to incorporate climate change factors. Thanks to the platform initiative put in place by the DCF project, and through the review of the national planning guide, the mainstreaming of climate change into national policies and local development plans is taking shape.

<sup>99</sup> Learnings from Decentralised Climate Funds Senegal. (2019). P. 18.

BRACED aims to build the resilience of up to 5 million vulnerable people against climate extremes and disasters. It does so through a three year, UK Government funded programme, which supports 15 consortiums, across 13 countries in East Africa, the Sahel and Southeast Asia. Uniquely, BRACED also has a Knowledge Manager consortium.

The Knowledge Manager consortium is led by the Overseas Development Institute and includes the Red Cross Red Crescent Climate Centre, the Asian Disaster Preparedness Centre, ENDA Energie, ITAD and the Thomson Reuters Foundation.

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The Knowledge Manager also fosters partnerships to amplify the impact of new evidence and learning, in order to significantly improve levels of resilience in poor and vulnerable countries and communities around the world.

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