



Delivering climate finance at the local level to support adaptation: experiences of County Climate Change Funds in Kenya

Acknowledgements

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Acronyms

ADA	Adaptation Consortium
ADS-E	Anglican Development Services - Eastern
ALDEF	Arid Lands Development Focus
ASALs	Arid and Semi-arid Lands
BoQ	Bill of quantities
CA	Christian Aid
CAF	County Adaptation Fund
CCA	Climate Change Act
CCCPC	County Climate Change Planning Committee
CCCF	County Climate Change Fund
CCD	Climate Change Directorate
CDM	County director of meteorology
CIDPs	County Integrated Development Plans
CIMES	County Integrated Monitoring and Evaluation System
CIS	Climate Information Services
CoG	Council of Governors
CORDAID	Catholic Organisation for Relief and Development Aid
DFID	Department for International Development
ECHO	European Commission Humanitarian Office
IIED	International Institute for Environment and Development
KMD	Kenya Meteorological Department
KSG	Kenya School of Government
LREB	Lake Region Economic Block
MDNKOAL	Ministry of State for Development of Northern Kenya and Other Arid Lands
MEL	Monitoring, Evaluation and Learning
MID-P	Merti Integrated Development Program
NAP	National Adaptation Plan
NCCAP	National Climate Change Action Plan III
NDMA	National Drought Management Authority
NIMES	National Integrated Monitoring and Evaluation System
PVCA	Participatory Vulnerability and Capability Assessment
RA	Resilience Assessment
Sida	Swedish International Development Agency
SOP	Standard Operating Procedures
TAMD	Tracking Adaptation and Monitoring Development
WAPC	Ward Adaptation Planning Committee
WCCPC	Ward County Climate Planning Committee
WOKIKE	Womankind Kenya

Executive summary

The Kenya County Climate Change Fund (CCCF) mechanism, initially piloted as the Climate Adaptation Fund in Isiolo and subsequently scaled out to Garissa, Kitui, Makueni and Wajir Counties, is a pioneering mechanism to facilitate the flow of climate finance to county governments and simultaneously empower local communities, through strengthening public participation in the management and use of those funds, to build their resilience to a changing climate. It is a practical example of how climate finance can support climate-resilient development and effective adaptation as set out in the Paris Agreement. It has been piloted successfully in five counties, and its expansion is one of the priorities in the National Climate Change Action Plan, 2018-2022.

This working paper provides a synthesis of learning on the CCCF mechanism's effectiveness in delivering investments in public goods that build resilience to climate change in poor and vulnerable communities. It draws on findings from numerous studies, project monitoring and evaluation (M&E) reports, and internal and external evaluations to review what has and has not worked to date; provides supporting evidence for operational features that have strengthened the capacity of county government, communities and local institutions to plan for climate-induced hazards and opportunities while ensuring social inclusion and public accountability; and highlights the lessons learnt and improvements needed to scale out the mechanism, especially in contexts that are different from those of the pilot operations. It thus comes at a critical moment as the Government of Kenya prepares to scale out the mechanism nationwide.

We find that the CCCF mechanism is helping to enhance inclusion and participation of communities in the decision-making process around CCCF investments as well as in the wider county development planning process. Results from studies focusing on CCCF investments reveal a strong level of community participation in and knowledge of the CCCF mechanism implementation process, driven and facilitated by ward-level adaptation committees. Surveyed households were positive about their involvement in the consultation and decision-making process and saw tangible adaptation benefits from the investments. Respondents suggested the greater focus on public participation had improved standards in the way contractors implemented the investments. Evidence is also emerging that the mechanism's approach to devolving decision making to Ward County Climate Planning Committees (WCCPCs) and its emphasis on participation and inclusion is strengthening the approach in County Integrated Development Plans (CIDPs) to citizen/community participation and inclusion. The CCCF mechanism is also leading to greater engagement of women and youth in the planning process at the community and ward levels, and there is evidence that the mechanism has helped integrate climate change concerns in planning and budgeting.

Although the CCCF mechanism has supported the development of county-level climate information services (CIS) plans for all five counties of CIS information has not yet been systematically used for the design of all investments. For example, technical specifications for developing water pans do not accommodate potential run-off from years of high and low rainfall or projected changes in rainfall patterns and intensity.

Ada Consortium’s work on the CCCF mechanism has delivered several key achievements, including:

- i) five CCCF legislations in place with functional structures, which commit those counties to use 1-2% of their development budgets to support the implementation of CCCF investments;
- ii) county and ward climate change planning structures anchored in the CCCF legislations promoting better coordination and more efficient ways of doing climate change work;
- iii) CIS plans in place and resilience planning tools piloted in all five counties, including resilience assessments, participatory vulnerability and capability assessments and community resource mapping;
- iv) a monitoring system to track how adaptation builds resilience and strengthens economic development; and
- v) the implementation of over 100 community-prioritised public goods investments across the five counties, reaching more than 500,000 direct beneficiaries.

At the community level, all studies on the CCCF mechanism point to strong positive impacts of CCCF investments on beneficiary households and communities. A large-scale household survey conducted in 2018 in the counties of Isiolo, Makueni and Wajir found that respondents reported 100% greater access to water for households and livestock and a two-hour saving per household per day on water collection (equivalent to 700 hours a year), providing direct benefits of more than KES 400 million (£3 million) a year across the three counties, with average net annual benefits of more than KES 14,170 (£109) per household. This represents an 8% increase in annual household income. There is also evidence that these benefits are leading to a cascade of additional direct and indirect benefits, including: improved livelihoods, incomes and food security; new economic opportunities such as vegetable gardens, small-scale irrigation and tree nurseries; reduced cost of accessing water, improved livestock health and fewer conflicts within households, communities and between neighbouring villages; and the strengthening of customary natural resource management institutions. The studies reveal that women are key beneficiaries of CCCF investments. As a result of the investments, women have greater access to water for domestic use and spend less time fetching water. They use the time they have gained on other domestic chores, supporting their children’s schoolwork, other livelihood activities or setting up small businesses.

Overall, the paper finds that the CCCF mechanism is leading to significant adaptation benefits for individuals, households and communities, while contributing to institutional reforms at the county level, ensuring that the voices of the vulnerable and marginal are heard and included in decision making. The CCCF mechanism has gone beyond a standard project approach that creates parallel processes and structures to become increasingly integrated into government planning systems. It is supporting county government capacity development, critical for effective climate adaptation, and demonstrating ways to deliver transformational changes in governance for climate-resilient development, including how to channel global and national climate funds to the local level to reach the most vulnerable. Such transformational change — challenging business-as-usual approaches to development — is essential to achieving the broader national and international development and climate agendas. These include Kenya’s Vision 2030, the 2030 Sustainable Development Agenda pledge to ‘leave no one behind’ and the Paris Agreement commitment to take the urgent needs of those that are particularly vulnerable to climate change into account.

The CCCF mechanism has only been tested and implemented in rural wards of five arid and semi-arid counties in northern Kenya. It is now being scaled out to new areas including Kenya's lake region and its coastal and urban areas, which range from small and intermediate centres to the capital city, Nairobi. This will require adapting the mechanism to these new contexts, while learning from existing challenges. Five key challenges have emerged.

The five key challenges of scaling out CCCF

1. Maintaining the strong focus on inclusion and community participation that is critical for continued success, especially as the mechanism transitions from its pilot and project phase to becoming fully embedded into government processes
2. Ensuring the long-term sustainability of investments and the integration of climate information into the design of investments
3. Strengthening CIS and ensuring climate information reaches and benefits the most vulnerable
4. Planning for climate adaptation at appropriate scales, including extending beyond administrative boundaries
5. Improving the quality assurance and M&E processes within CCCF, including approaches for measuring resilience.

On a final note, if devolved climate finance mechanisms are to be tested and implemented in new countries, it is critical to highlight that a major factor of success was the very flexible funding provided by the UK Department for International Development (DFID) and the Swedish International Development Agency (Sida), which enabled the Ada Consortium to implement the work through a staged design and implementation approach. Institutional strengthening and climate change are both complex processes, which embody 'wicked' problems that are incomplete, contradictory and have changing requirements that are often difficult to recognise. Due to complex interdependencies, efforts to solve one aspect of a wicked problem may reveal or create others. Hence an extended, flexible design process during which the shape of the programme can evolve through 'learning by doing', is vital. Iterative learning, based on evidence and critical, participatory reflection, is a key means for tackling 'wicked' problems.

1. Introduction

The Kenya County Climate Change Fund (CCCF) mechanism, implemented in the counties of Garissa, Isiolo, Kitui, Makueni and Wajir, has simultaneously catalysed climate resilience and inclusive economic development. It has shown that people in poor and marginalised households derive substantial benefits from local climate adaptation planning when it is supported by devolved funds managed by county authorities, informed by community priorities and enhanced by climate information services.

This is significant because it demonstrates how global climate finance can reach the most vulnerable communities effectively and efficiently. It is a practical example of how climate finance can support climate-resilient development and effective adaptation as set out in the Paris Agreement (Box 1).

Results from the pilot phase (2011–2018) confirm that the mechanism builds agile and resilient local institutions capable of reducing climate vulnerability (thereby reducing the cost of humanitarian responses to climate shocks),¹ addresses local drivers of conflict and improves security (Toulmin et al. 2015; Tari et al. 2015). It also supports the devolution agenda, improving social inclusion and public accountability for development decisions, and, significantly, sets a precedent of doing so for climate finance (NDMA 2018a and 2018b).

Box 1: The Paris Agreement

Article 2, para 3c

“Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.”

Article 7, para. 5

“Parties acknowledge that adaptation action should follow a country-driven, gender-responsive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems, and should be based on and guided by the best available science and, as appropriate, traditional knowledge, knowledge of indigenous peoples and local knowledge systems, with a view to integrating adaptation into relevant socioeconomic and environmental policies and actions, where appropriate.”

Source: United Nations (2015)

The Government of Kenya is committed to expanding and institutionalising the approach nationwide. This is being done under the stewardship of the Ministry of Devolution and ASALs, working through the National Drought Management Authority (NDMA) in close collaboration with other parts of the national government, the Council of Governors and technical partners (RoK 2019). The CCCF mechanism supports the implementation of the Climate Change Act (No. 11 of 2016), is a priority of the current National Climate Change Action Plan (NCCAP) (Box 2) and will contribute to the achievement of Kenya’s Nationally Determined Contribution. At the county level, the mechanism gives county governments and their citizens a means of accessing and using climate finance in a way that addresses their distinct priorities while reinforcing their capacity to fulfil their constitutional obligations to the public.

This working paper provides a synthesis of learning on the CCCF mechanism’s effectiveness in delivering investments in public goods that build resilience to climate change in poor and vulnerable communities. It reviews what has and has not worked to date; provides supporting evidence for design

¹ See Venton *et al.* (2012), who conclude that, although building resilience costs more than early responses, there is a strong argument for building resilience given its wider benefits and much lower costs than humanitarian response.

features that have strengthened the capacity of county government, communities and local institutions to plan and prepare for climate-induced hazards and opportunities while ensuring social inclusion and public accountability; and highlights the lessons learnt and improvements and adaptations needed to scale out the mechanism, especially in contexts that are different from those of the pilot operations. It thus comes at a critical moment as the Government of Kenya prepares to scale out the mechanism nationwide.

This document draws on findings from numerous studies, project monitoring and evaluation (M&E) reports, and internal and external evaluations.

Box 2: Relevant extracts from the NCCAP (2018–2022)

Strategic objective 1 (expected result by June 2023): “Number of households better able to cope with climate change because of receiving benefit from County Climate Change Funds increased from 300,000 households in 2018 to 800,000 households. Climate Change Funds address local adaptation priorities that are identified and monitored by community committees comprised of women and men.” (pp 40–41)

Policy and regulatory framework, priority enabling action #2: “Support alignment of county legislation to the Climate Change Act, 2016. Assist county governments to develop County Climate Change Funds regulations that are linked to the national Climate Change Fund, building on the examples of Makueni, Wajir, Garissa, Isiolo and Kitui.” Expected result by 30th December 2020: “Five county governments have developed climate change fund regulations. By 30th June 2023, an additional ten county governments have developed climate change fund regulations.” (p 73)

Climate finance and resource mobilisation, enabling action #1: “Operationalise the Climate Change Fund.” Expected result by June 2023: “Climate finance is being disbursed through identified funding windows, and the national fund is linked with CCCFs.” (p 79)



Makueni consulting on their public good investments Photo by Jane Kiiru

2. The genesis and piloting of the CCCF mechanism

In 2010, following the promulgation of Kenya's new constitution and in anticipation of the creation of county governments in 2013, the then Ministry of State for Development of Northern Kenya and other Arid Lands (MDNKOAL) sought technical assistance from the International Institute for Environment and Development (IIED) to identify ways to strengthen planning in Kenya's Arid and Semi-arid Lands (ASALs). These areas were disproportionately vulnerable to climate risk due to a historical legacy of political, social and economic marginalisation and government planning systems that were ill-adapted to the dynamics of the areas (RoK 2012a and 2012b; Msangi et al. 2014). The ministry recognised that strengthening institutional capacity for good governance and adaptive planning at the county level was not only vital for the sustainable development of Kenya's drylands in the face of future climate change, but also to realise their full potential under devolution.

2.1 The initial pilot (2011–2013)

The first pilot began in the three districts of Isiolo County in 2011,² with funding from DFID and the Catholic Organisation for Relief and Development Aid.³ The pilot adopted a participatory action-research process to co-generate information on the existing planning system's limitations in building future county governments' capacity to respond to climate change (see Box 3).

As well as integrating climate change into development planning, this pilot also aimed to implement the principles of devolved governance introduced by the new constitution and the then County Governments Bill of 2012. The pilot designed and tested a devolved climate finance mechanism — the County Adaptation Fund (CAF), a precursor to the CCCF — to enable Isiolo's future county government to access climate finance.⁴ It strengthened existing institutions and planning mechanisms and tools as well as establishing new ones to test the institutionalisation of a decision-making process that puts communities in control of their adaptation priorities while ensuring greater social inclusion and public accountability. The pilot also tested an M&E system to track the effectiveness of local adaptation investments in promoting climate-resilient development. A first round of CAF funding totalling £500,000 financed 23 public goods investments to improve resilience to climate change. These generated tangible benefits for an estimated 18,825 people, through improved water availability,

² Isiolo Central, Merti and Garbatulla

³ The Regional Advocacy and Learning Programme, funded by the European Commission Humanitarian Office and IIED internal resources, provided additional funding for specific activities.

⁴ Due to restrictions on DFID funding being managed directly by government, IIED managed the CAF funding, acting as an agent of the County Adaptation Planning Committee. For more details, see Ada Consortium (2015).

pasture management and livestock health. These factors are all critical in addressing the underlying causes of vulnerability to climate change in the context of the serious development deficit that is characteristic of the ASALs and in strengthening adaptation to future extreme events in the ASALs (Müller and Pizer 2014; NDMA 2014).

Box 3: Limitations of formal planning systems in the ASALs

- Disconnect between government and community planning; traditional community-based institutions rarely consulted and absent from formal planning process.
- Lack of understanding of community planning by government and of government planning by the community.
- Community lack capacity to develop written proposals in line with government systems, so community priorities delivered verbally to government planners.
- Climate information not well integrated into government planning.
- Centrally set budget guidelines limit sub-national governments' ability to support local priorities, particularly within annual budget cycle.
- Budget allocations set centrally according to criteria designed for service delivery (for example, population or poverty levels) and by sector; not in recognition of systemic nature of local economies and livelihoods.
- Government procurement process and delivery of investments slow with no community oversight.

Source: MDNKOAL (2011)

Working with local institutions at the sub-district level – which would become wards under the future county government – the pilot showed that when such institutions are financially and technically empowered, they can identify and oversee the implementation of investments in public goods that meet local priorities and reinforce local adaptation strategies (NDMA 2014). This was significant, supporting not only the principle that the newly established county governments should devolve authority for local planning to the ward level in line with the provisions of devolution, but also the principle of subsidiarity for effective climate action at the local level. Evidence from the wave of governance reforms in the Sahel – where Mali, Burkina Faso and Niger introduced decentralisation policies in the 1990s and early 2000s – showed that newly established local governments were reluctant to further devolve their recently acquired decision-making powers (especially over financial resources) to lower-level institutions, claiming the latter lacked the capacity to exercise such powers (Bagré et al. 2003; IIED 2006; Faye 2008). Demonstrating the capabilities of institutions at the future ward level was thus a key objective of the initial pilot in Isiolo.

2.2 Scaling out to four more counties (2013–2018)

The initial success in Isiolo prompted DFID and then Sida to award funding to the Adaptation Consortium (Ada Consortium)⁵ — led by the then newly established NDMA⁶ — to consolidate the work in Isiolo County and scale out the mechanism to Kitui, Garissa, Makueni and Wajir Counties, which collectively cover 29% of Kenya’s land mass and support a population of approximately 3.3 million people (Figure 1).⁷

In Phase 2, the pilot used insights from Ada Consortium members’ wider experience of supporting climate adaptation to refine the initial components of the CAF mechanism in Isiolo and develop the four interrelated components of the CCCF mechanism:

- A fund to finance climate action
- Adaptation planning committees at county and ward levels
- Climate information and resilience planning tools
- An M&E system.

Working closely with the newly established county governments, Ada Consortium members sought to institutionalise the CCCF mechanism in county development planning and budget procedures through a process of co-generated action-research, training and advocacy. Key activities included: incorporating

climate change into county integrated development plans (CIDPs); developing legislation to formalise the establishment and functioning of the fund and county and ward-level adaptation planning committees; developing county CIS plans; testing the relevance of resilience planning tools such as participatory geographic information system resource mapping, vulnerability and resilience assessments and other methods to ensure greater social inclusion and to better target the needs of vulnerable groups.

There were two rounds of funding investments prioritised by ward-level planning committees. The first, funded by DFID (£2.3m), covered 37 wards across all five counties over 2016–17; the second, funded by Sida (£203,676), focused on 18 wards in Makueni and Wajir Counties in 2018. These two county governments had passed legislation formalising the CCCF mechanism, which enabled them to implement the provisions within the CCCF legislation, particularly the commitment to transfer 1–2% of their development budgets to the CCCF. As a result, Wajir and Makueni each committed KES 8 million (£62,000) to match Sida’s funding.⁸

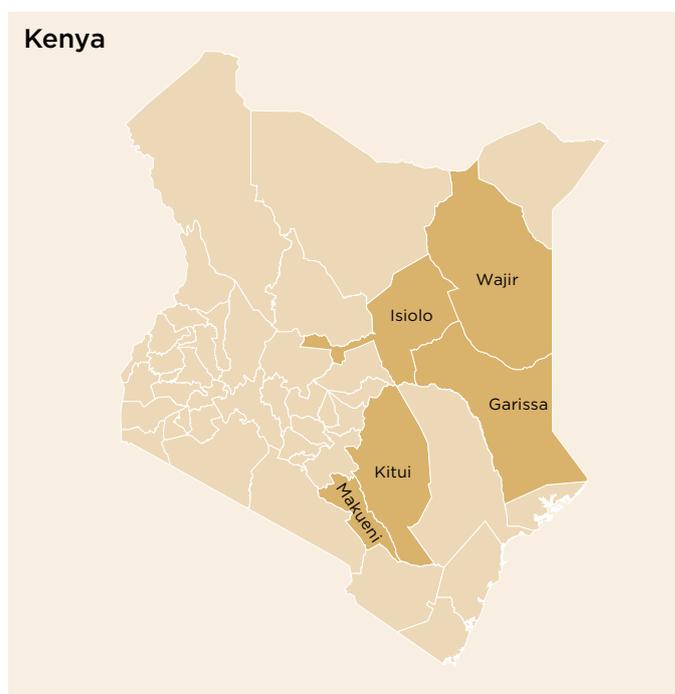


Figure 1 Scale of CCCF mechanism, Phase 2

5 The Ada Consortium was composed of the Kenya Meteorological Department, the UK Met Office, Christian Aid, IIED and in-county partners Anglican Development Services–Eastern in Kitui and Makueni, Arid Lands Development Focus in Wajir, Womankind Kenya in Garissa and the Resources Advocacy Programme in Isiolo, which was later replaced by the Merti Integrated Development Programme. CARE International was briefly a member. See www.adaconsortium.org

6 Following the 2013 elections, MDNKOAL ceased to exist and the work of the Ada Consortium was transferred to the newly established NDMA.

7 DFID awarded £6.5 million from July 2013 to June 2018; Sida awarded £484,000 from May 2017 to June 2018.

8 Sida funding continued to be managed by Ada Consortium partners under the agent model.

The pilot refined and integrated the CCCF mechanism into county planning systems in close collaboration with the newly formed county governments as they learnt to implement their newly found powers and responsibilities over planning as set out in the County Governments Act (2012) and other related policy and legislation. While offering opportunities to inform and influence the county planning process in practice, it also brought challenges associated with county governments' capacity to establish themselves while also integrating the CCCF mechanism into their planning systems. Frequent cabinet reshuffles, reassignment of key technical staff to new positions and power dynamics between the County Executive and the County Assembly and between county and national governments all contributed to delays in the implementation of the CCCF mechanism.

Despite these challenges, the Ada Consortium's work delivered the following key achievements:

- Five CCCF legislations were put in place with functional structures. Through their county assemblies, Isiolo, Kitui, Garissa, Makueni and Wajir Counties enacted laws committing 1-2% from their development budgets to support the implementation of priority climate change interventions on a more sustainable basis. Makueni and Wajir capitalised the CCCF mechanism with 1% and 2%, respectively, of their development budgets in 2018-19.
- The county and ward climate change planning structures anchored in the CCCF legislations promote better coordination and more efficient ways of doing climate change work, which has resulted in more relevant and sustainable interventions.
- All five counties have CIS plans in place and have piloted resilience planning tools, including resilience assessments, participatory vulnerability and capability assessments and community resource mapping. Together, these tools enable counties and communities to prioritise the most appropriate public goods investments that contribute to their resilience.
- A monitoring system tracks how adaptation builds resilience and strengthens economic development. Piloting the Tracking Adaptation and Monitoring Development (TAMD) framework provided useful lessons on how adaptation and development can be linked.
- Collectively implementing the CCCF mechanism across the five counties led to the implementation of over 100 community-prioritised public goods investments, directly benefiting more than 500,000 people (Table 1).
- A significant body of evidence on the process and results of establishing the CCCF mechanism has been built (see Annex 2).

The pilot also demonstrated a model of partnership between state and non-state actors that respects government leadership, bringing together the complementary skills and experiences of the various organisations involved: the legitimacy and 'rootedness' of local partners, the knowledge and technical skills of government agencies and the global perspective and connections of international agencies.

County	WCCPC prioritised investments	Link to climate resilience
Makueni County	Construction and/or rehabilitation of five sand dams, two earth dams, one water harvesting system off rocky outcrops, and one water pipeline distribution line with associated water storage and distribution systems, domestic water kiosks and sanitation facilities; and governance activities.	<ul style="list-style-type: none"> Improved access to clean water improves human health, and thus resilience to disease and capacity to withstand stress. Natural healing of gullies leads to the restoration of environment and catchment areas. Capture and storage of rainfall run off extends availability of water in the dry season for domestic use and reduces the need for women and girls to travel to more distant permanent water points, providing more time for investments in income-generating activities, improving food security and allowing time for girls to attend school. Stored rainwater also supports micro-irrigation, improving nutrition and income that is important for withstanding stress during prolonged dry season.
Kitui County	Rehabilitation and/or construction of eight earth dams, two sand dams, one water harvesting system off rocky outcrops with associated water storage and distribution systems, domestic water kiosks and sanitation facilities; and governance activities.	<ul style="list-style-type: none"> Provision of separate water access points for livestock and women and girls ensures quicker turnaround times and cleaner, more potable water for domestic use, improving human health and thus resilience to disease and capacity to withstand stress. Improved governance of water access for livestock at water point reduces congestion, and thus risk of disease transmission and social tensions between users. It also maximises the time livestock can graze following watering to maintain productivity and reduce stress for animals. In a livestock-based ASAL economy characterised by variability and unpredictability, regulating access of livestock to water, particularly in the dry season, is critical for rangeland management to avoid over-grazing, which undermines livestock productivity and the ability of animals to withstand stress. Water governance to ensure reciprocal resource access agreements based on negotiation reduces the risk of conflict critical for building climate resilience.
Isiolo County	Rehabilitation, fencing and/or construction of 12 sand dams, 11 water pans, 2 shallow wells, 3 water harvesting systems off rocky outcrops and one water tank with accompanying water storage and distribution systems for domestic and livestock use and sanitation facilities; and governance activities.	<ul style="list-style-type: none"> Enabling access to dry season and drought reserve pastures reduces livestock mortality and thus asset loss. Closure of a borehole during the rainy season enables surrounding pastures to grow and thereby constitutes a stock of forage for the dry season, particularly in drought years.
	Rehabilitation and/or drilling of four boreholes in a strategic dry season or drought reserves and associated training of user committee to strengthen governance of water point.	<ul style="list-style-type: none"> The sealing of this water pan will leave an existing borehole as the only water source in the dry season grazing reserve. This borehole will be sealed during the wet season to prevent grazing, thereby ensuring the availability of livestock fodder and improved livestock health in the dry season.
	Sealing off an existing water pan in a dry season grazing reserve.	<ul style="list-style-type: none"> Supporting these institutions will enable negotiated reciprocal management and surveillance of wet season, dry season and strategic drought grazing reserves, to ensuring better availability of fodder and livestock health in the dry season and during drought, while also ensuring good social relations with different pastoral groups.
	Funding for planning meetings and operational costs of four customary range management institutions (<i>dedhas</i>).	

Table 1: Summary Climate Resilience Investment Portfolio in the five counties

County	WCCPC prioritised investments	Link to climate resilience
	<p>Rehabilitation of livestock laboratory and a CCCPC-funded cross-county vaccination programme and livestock survey.</p>	<ul style="list-style-type: none"> • Early diagnosis and regular monitoring of livestock disease due to changing climate conditions enables the county veterinary department take preventive action (e.g. a vaccination campaign), reducing livestock disease and mortality and protecting livelihoods. • A livestock survey informed development of the Isiolo County Livestock Strategy.
	<p>CCCPC funded workshop to integrate climate change into the Isiolo County Integrated Development Plan 2013-17.</p>	<ul style="list-style-type: none"> • Ward-level prioritised climate adaptation issues were able to be integrated in the CIDP, potentially increasing adaptation benefits from county government and development partners, investments over the course of the plan.
	<p>CCCPC funded construction of a community radio station in Garba Tulla Ward.</p>	<ul style="list-style-type: none"> • Dissemination of weather and climate information by KMD to assist with short-term planning by communities and public awareness raising on general development and governance issues, including incidences of conflict and disease out-breaks, are critical for building resilience.
<p>Wajir County</p>	<p>Rehabilitation of twelve bore holes, including installation of solar equipment on eight to complement diesel pumps, with associated water storage and distribution systems to water kiosks and livestock troughs and fencing and sanitation facilities.</p> <p>Rehabilitation of eleven water pans and one dam = to improve water governance, with associated water distribution systems to water kiosks and livestock troughs fencing and sanitation facilities.</p>	<ul style="list-style-type: none"> • Provision of separate water access points for livestock and women and girls ensures quicker turnaround times and cleaner, more potable water for domestic use, thereby improving human health and thus resilience to disease and capacity to withstand stress. • Improved governance of water access for livestock at water point reduces congestion, and thus risk of disease transmission and social tensions between user. It also maximises the time livestock can graze following watering to maintain productivity and reduce stress for animals. • Provision of solar power for pumping water reduces the need for diesel-run generators, thus reducing the cost of water for users and the risks of generator failure due to over-use. This is critically important for people and livestock, particularly during the dry season and in drought years. It also contributes mitigation objectives.
<p>Garissa County</p>	<p>Rehabilitation of four bore holes and provision of one water piping project with associated water storage and distribution systems, domestic water kiosks and sanitation facilities and governance activities</p>	<ul style="list-style-type: none"> • Provision of separate water access points for livestock and women and girls ensures quicker turnaround times and cleaner, more potable water for domestic use, thereby improving human health and thus resilience to disease and capacity to withstand stress. • Improved governance of water access for livestock at water point reduces congestion, and thus risk of disease transmission, and social tensions between users. It also maximises the time livestock can graze following watering to maintain productivity and reduce stress for animals.

Table 1 (continued)

3. The conceptual framework for the CCCF mechanism

The CCCF mechanism, initially designed in the context of Kenya's ASALs, was informed by two factors:

- Improved understanding of the dynamics of resilience under the climate variability that is characteristic of dryland ecosystems, economies and societies;
- The opportunities that significant reforms to Kenya's governance and planning frameworks (the new 2010 constitution, devolution and accompanying policy and legislation on ASAL development and climate change) can provide for county government climate resilience planning systems tailored to ASALs, with strong community engagement, social inclusion and public accountability.

3.1 Valuing variability: harnessing the potential of ASALs

Research from the past 20 to 30 years has highlighted the need to understand dryland environments as inherently variable and uncertain settings where significant seasonal and inter-annual variations in precipitation, coupled with periodic droughts or floods, are the norm rather than the exception (Behnke et al. 1993; Krätli 2015; Catley 2017). For pastoral and agro-pastoral production systems operating under variable climatic conditions in the drylands of Africa, a degree of risk is inherent – for example, it may or may not rain in the right place, at the right time or in the right amount. This is normal, and livelihood systems use a range of different production strategies to manage risks of this nature. They do not simply seek to reduce the impacts of climate variability; in certain cases, they seek to exploit it to maximise opportunities for improved productivity. This requires flexible institutions to manage real-time adaptation to unpredictable and uncontrollable incidents, to avoid adverse or critical consequences and to take advantage of the opportunities that variability might offer.

Box 4: Production strategies adapted to environmental variability

Farmers use various strategies to manage temporal variability in rainfall. They may plant various single crop varieties with different maturation times or different crops on different soils; they might intercrop different varieties or use sequenced sowing, often in small pockets to concentrate moisture and nutrients. They frequently combine such strategies with harvesting run-off and terracing, cultivating fields in different localities rather than one single large field to manage spatial variability in rainfall.

Pastoralists use strategic mobility to deal with the variable temporal and spatial distribution of nutrients for livestock. They maintain pastoral resources under an overarching common property tenure regime, with nested rights of control and access to specific, high-value resources regulated by negotiation and reciprocity rather than fixed rules. Their herds are composed of different species, breeds and sub-groups within a breed to increase their options to exploit highly diverse fodder plants.

Sources: de Jode (2009); Reij et al. (2009); Krätli (2015)

Over time, dryland communities have developed specialised production systems, strategies and institutions to manage spatially and temporally variable rainfall (see Box 4). They have learned to integrate rainfall and environmental variability into their livestock and crop production strategies, optimising the use of resources that are only available for a limited time in specific locations to maximise productivity, thereby building resilience in contexts of high variability. So, to understand why vulnerability occurs, it is important to distinguish between risks that are inherent to and managed by the system and induced vulnerability resulting from external factors, such as inappropriate policies and practices that undermine local production systems and the proper functioning of strategies. (Krätli et al. 2013).

Drylands development policies and interventions are still based on the presumed limitations of the natural resource base, with an emphasis on scarcity, vulnerability and food insecurity caused by variable rainfall and frequent drought (Hesse 2011; Krätli 2013; Behnke and Mortimore 2016). They continue to justify interventions to ‘stabilise’ conditions, often through costly, externally driven approaches that mainly focus on investments in technology and infrastructure. These are difficult to sustain, often inequitable and fail to capitalise on the knowledge, experience and ingenuity of people who either exploit the heterogeneity and variability of their environments or adapt to it during periods of stress. In failing to recognise how dryland producers interface with variability, such interventions have not only missed opportunities to capitalise on the potential of drylands, but also undermined the very resilience of these economies and societies (Krätli and Schareika 2010; Venton et al. 2012; Krätli et al. 2013).

Climate risks are projected to increase with climate change. They may even surpass the capacity of these strategies to manage greater seasonal and internal variability and more frequent extreme events, especially when they are weakened by an unfavourable policy environment. But they should still be the starting point for efforts to build climate resilience in the drylands.



A pastoralist grazing his shoats in Isiolo County Photo by Peter Cacah

Formal government planning systems need to learn from and build on existing production systems that have operated successfully under current conditions of environmental variability and address the factors that undermine their functionality. Supporting such strategies requires localised planning governance systems that empower local people to engage with sub-national governments in identifying practical strategies to build their adaptive capacity and longer-term resilience to climate change. The institutional reforms in Kenya that began in 2010 provided that framework.

3.2 Governance and planning reforms

Kenya's new constitution (2010) and the introduction of devolution in 2013 provided a policy and legal framework for county governments to plan and finance local development and promote greater community involvement and public accountability in development planning. The adoption of two ASAL-specific policies in 2012 (Box 5) also ensured that their concerns were integrated into national and county development planning. In addition to this, national government recognition of the threats posed by climate change led to the development of the National Climate Change Response Strategy in 2010 and the National Climate Change Action Plan (NCCAP 2013–2017) in 2012, providing opportunities to integrate climate change into the newly established CIDPs.

These institutional reforms gave county governments the opportunity to address the significant development deficit in the ASALs' public services. The reforms also enabled county governments to target and target and tailor investments to strengthen local adaptation strategies for those who are most vulnerable to current climate risks and introduce systems and strategies for more radical or transformative adaptation to cope with extreme climate changes in the future. Unlike other African countries — where decentralisation has under-performed (IIED 2006; Demanté and Tyminsky 2008; IIED 2006; Ribot 2008 and 2011; Poteete and Ribot 2011) — the devolution process in Kenya delivered significant transfers of discretionary authority (including policy and legislative powers) over planning and a concomitant transfer of financial resources. This has given county governments the legal authority and financial power to drive their own development agenda within a broader constitutional framework that ensures public participation.

Box 5: Policies for Kenya's ASALs

National Policy for the Sustainable Development of Northern Kenya and other Arid Lands 'Releasing Our Full Potential' (2012):

"[The policy] addresses three distinct policy challenges which are particular to Northern Kenya and other arid lands: first, how to close the developmental gap between Northern Kenya and the rest of the country, which is a product of its historical experience [...]; second, how to protect and promote the mobility and institutional arrangements which are so essential to productive pastoralism; and third, how to ensure food and nutrition security across the ASALs, where unpredictability is certain to increase as the impact of climate change deepens."

The Vision 2030 Development Strategy for Northern Kenya and other Arid Lands (2012):

"...sustainable development in the ASALs will only be achieved when the full resources of government are marshalled towards that end; it cannot be a parallel agenda to the mainstream business of government."

Sources: RoK (2012a and 2012b)

These opportunities notwithstanding, strengthening county-level planning processes in the face of climate change has required considerable work, particularly in the ASALs (see Box 3). Although both the constitution and the County Government Act (2012) make provisions for citizen participation,⁹ the first generation of CIDPs had limited inputs from local people, despite their experience of how best to exploit the ecological and economic dynamics of their own environments. Furthermore, the rapid manner in which they were prepared, largely by external consultants, and the limited understanding of climate change among the new county officials resulted in climate change being insufficiently integrated. They were also marred by limited technical capacity, poor coordination across sectors and between counties and a failure to apply the principle of subsidiarity in planning and decision making.

The latter is critical for building resilience in ASALs, where local production and adaptation strategies are underpinned by community access to – and control over – natural resources that are often held under common property regimes. This is particularly true for women and more vulnerable groups. Given the high variability of these resources in ASALs, managing them at scale through a hierarchy of nested institutions that link community-based (often customary) institutions with higher-level government institutions at the ward, county and even regional or river-basin level is an essential element of maintaining the resilience of social, ecological and economic systems (Reid and Orindi 2018; Reid et al. 2018).¹⁰ Furthermore, in the absence of a specific devolved climate finance mechanism, very little climate finance flowed from the national to county levels to support community-driven adaptation and finance climate-resilient development within counties.

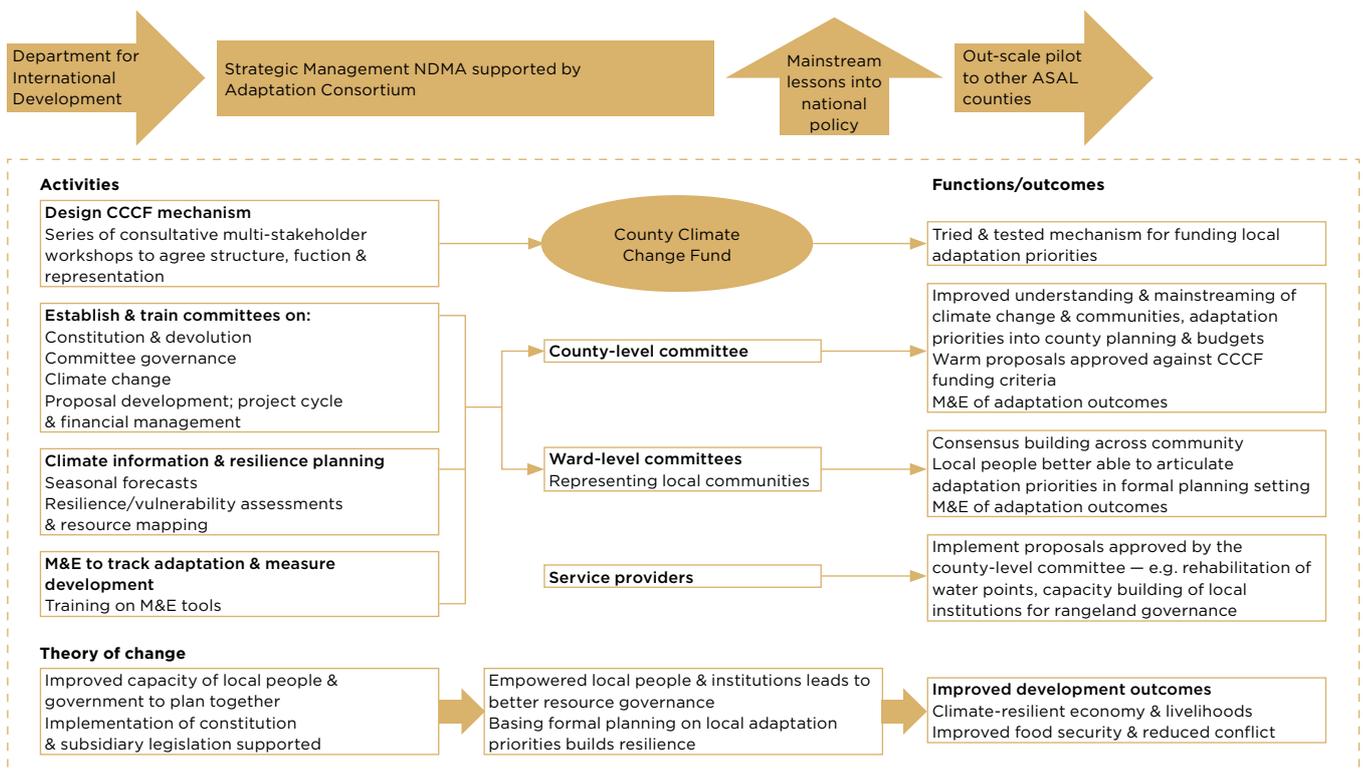
3.3 Theory of change

Figure 2 shows the four areas of change in county-level planning and budget systems identified in 2013 as necessary to strengthen the counties' capacity to provide a more climate-resilient development pathway that builds the adaptive capacities of poor and vulnerable people in ASALs. They are:

1. **Finance:** developing a mechanism with the necessary legal, financial and fiduciary standards to facilitate the regular and sustained flow of climate finance from national and international sources to complement county development budgets.
2. **Public participation:** developing and implementing new tools and approaches to empower communities to engage with county government, to improve public participation and ensure greater social inclusion and public accountability in designing, implementing and monitoring county government policy and prioritising investments to build climate resilience.
3. **Climate-resilient planning:** developing and implementing a framework for integrating climate information and community knowledge and experience into county planning to ensure that county government investments address current and future climate risks and promote climate-resilient development to support community-driven adaptation.
4. **M&E:** strengthening existing M&E systems to enable county governments to assess and report on the effectiveness of their institutional arrangements for climate risk management and the outcomes of their investments in climate-resilient development, thus justifying continued funding for adaptation and to improve the planning system (RoK 2019).

9 County Government Act (2012) Article 87 on the principles of citizen participation in counties; Article 97 on inclusion and integration of minorities and marginalised groups; and Article 102 on principles of planning and development facilitation.

10 County Government Act (2012) Article 110 on county spatial plans provides for these to be linked to regional, national and other county plans and “aligned with the spatial frameworks reflected in development of the integrated development plans of neighbouring counties.”



Source: Orindi et al. (2017)

Figure 2: CCCF mechanism theory of change (2013)

3.4 Components of the CCCF mechanism¹¹

These four strategic areas of change are mirrored in the four interrelated components of the CCCF mechanism, the first of which is the fund itself: a public fund managed at the discretion of the county government, with the necessary fiduciary mechanisms to ensure accountability and transparency. The other three components — ward and county-level planning structures that identify and prioritise investments likely to increase climate resilience; CIS and participatory tools to guide and inform analysis, planning and decision making; and M&E — ensure that the fund is managed effectively and with accountability.

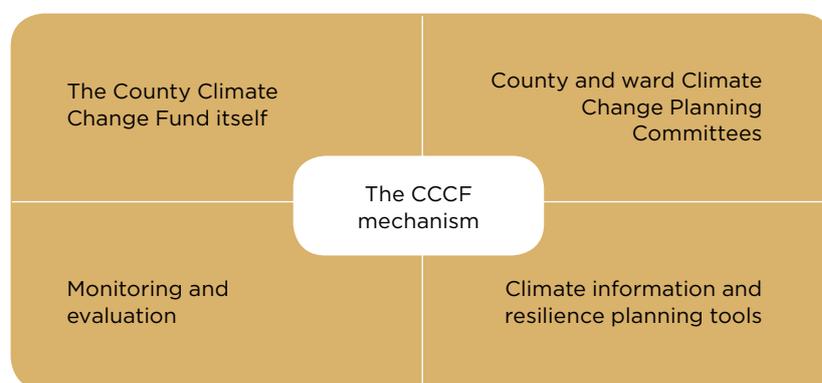


Figure 3: The four components of the CCCF mechanism

¹¹ For more details on the CCCF mechanism, see 'Guidelines for establishing a CCCF' (NDMA 2018c).

3.4.1 County Climate Change Funds

CCCFs are public funds that are managed at the discretion of the county government, with the necessary fiduciary mechanisms to ensure accountability and transparency (Ada Consortium 2015). CCCFs are primarily designed to finance local adaptation. Most of the fund (currently 70%) is earmarked for ward-level investments; 20% for county level investments; and 10% for consultation, proposal development and M&E costs. This 70:20:10 split is based on the need to empower vulnerable communities to make decisions and identify more pertinent public goods investments. The fiduciary mechanisms are consistent with public finance policy and law and complement the counties' existing finance systems. As public funds, CCCFs can be capitalised from various sources, including county development budgets,¹² national climate funds or in-country bilateral and multilateral donors.

3.4.2 County and ward-level County Climate Change Planning Committees

Representative ward County Climate Change Planning Committees (WCCPCs) are the mechanism's central pillar and, following consultation with local people, are responsible for identifying and prioritising investments in local public goods that strengthen communities' adaptive capacities. WCCPCs conduct participatory assessments of a community's resilience to climate hazards and future climate change. The committees use these assessments in a community consultation process to prioritise investments in public goods whose costs fall within their budget envelope and that meet the criteria for funding to promote climate-resilient growth and adaptive livelihoods (see Box 6).

Before it starts planning, each WCCPC is allocated a set budget that currently represents an equal share of the overall budget allocation for investments at the ward or inter-ward level. Committee members consult local people, consider options, weigh up the costs and benefits of different investments against the CCCF funding criteria and arrive at a consensual decision. Prioritised investments are submitted for review to the county climate change planning committee (CCCPC), which is composed of representatives from the ward committees, local government and other stakeholders. CCCPCs do not have the authority to reject WCCPC-prioritised proposals if they meet the strategic criteria (Box 6), but should provide technical support to and work with the WCCPCs to ensure their proposals meet the technical criteria. Once approved, WCCPCs participate in the procurement process led by county government, which signs contracts with service providers in accordance with the Public Finance Management (PFM) Act 2012 and Public Procurement and Asset Disposal Act 2015.¹³

CCCPCs are responsible for prioritising investments in public goods that benefit the whole county with oversight provided by a steering committee or board, depending on the county's legislation. These investments are funded from the CCCF's 20% allocation to county-level investments and might include projects that support the dissemination of CIS, the provision of marketing or veterinary services or the development of county legislation to devolve authority for managing local public goods, such as rangelands or water sources.

12 All five ASAL counties in the initial pilot have passed either a County Climate Change Fund Act or regulations to formalise the CCCF mechanism and made a commitment to transfer 1–2% of their annual development budgets to the fund to finance adaptation at the ward and county levels. The Ada Secretariat is currently reviewing the legal and regulatory framework (both acts and regulations) and operational procedures for the CCCF mechanism to ensure they fully comply and align with national policies and international standards to access climate finance.

13 Procurement used to be exclusively government-led. WCCPC— and therefore community members' — participation in these processes is innovative and has contributed to greater transparency and accountability. See Section 4.2 for more details on the premise underpinning WCCPC involvement in procurement.

Box 6: CCCF funding criteria

WCCPCs and CCCPCs use two sets of criteria to prioritise CCCF investments at the ward and county levels:

1. Strategic criteria: essential conditions for building resilience

- Focus on public goods that benefit many people, including women and young people
- Support the economy, livelihoods or important services on which many people depend
- Enhance resilience to climate change (adaptation) and, where possible, propose mitigation measures
- Encourage harmony and build social relations between people to foster peace
- Have no negative impact on the environment
- Meet county development priorities that integrate climate change.

2. Technical criteria: central conditions for successful implementation of the investment

- A realistic, achievable work plan that includes the type of technical support required for implementation, where appropriate
- Evidence of stakeholder consultation, including cross-boundary consultation where appropriate
- Evidence of value for money and how achievements will be sustained
- A theory of change and M&E plan to track beneficiaries and the achievement of objectives and benefits
- Evidence the project is not duplicating other planned investments by county/national government or other actors.

Source: NDMA (2018c)

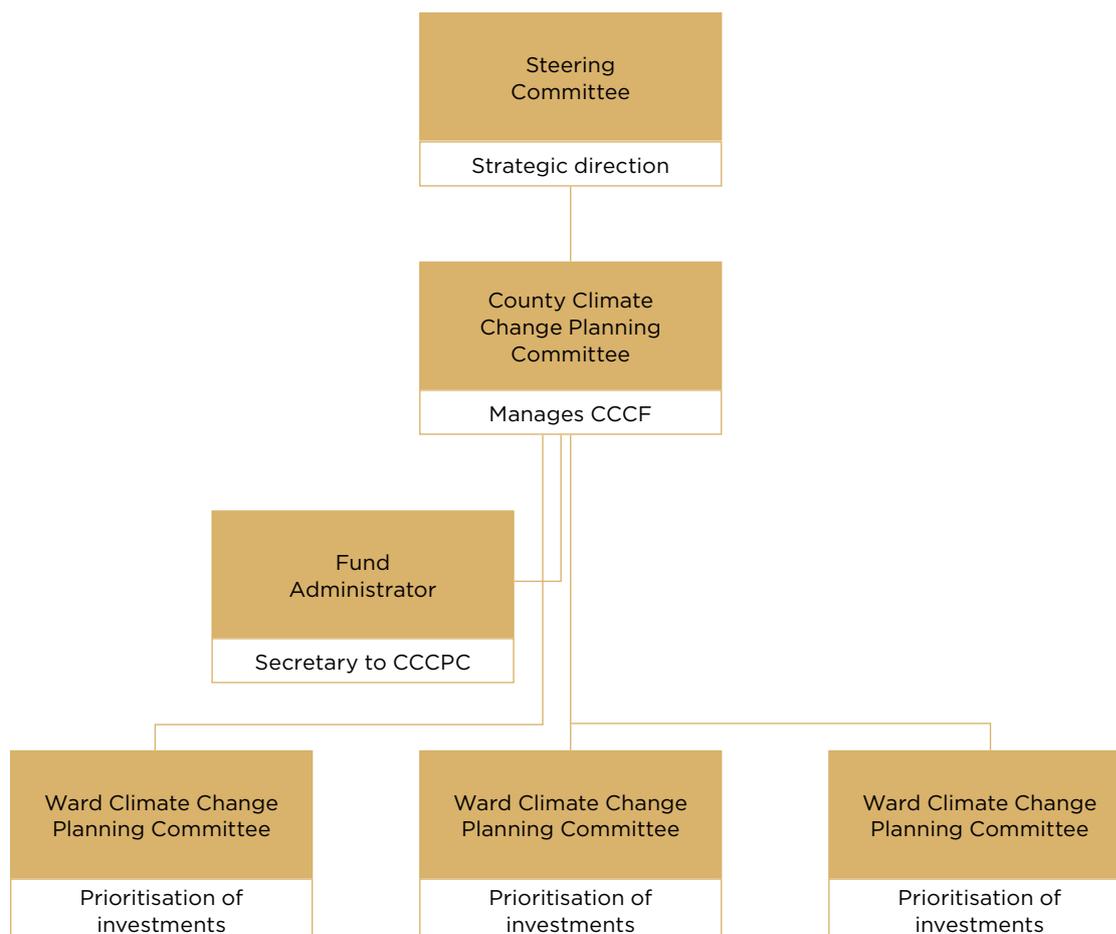


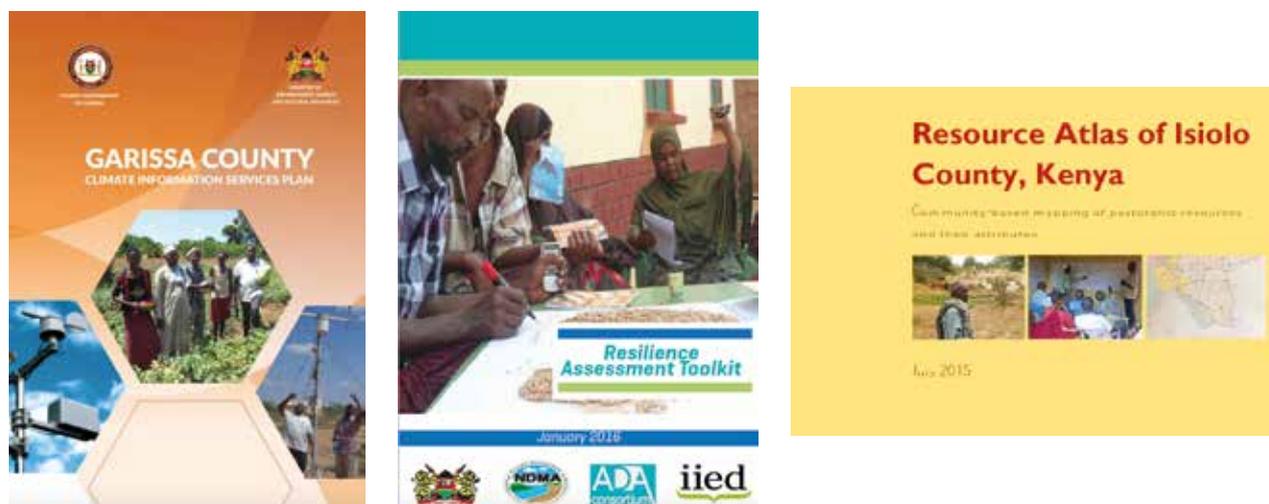
Figure 4: Generic representation of the structures of the CCCF mechanism

3.4.3 Climate information and resilience planning tools

WCCPCs integrate climate information from the Kenya Meteorological Department (KMD) into their participatory resilience assessments and resource mapping to ensure that prioritised investments consider current and future climate variability and hazards. County directors of meteorology (CDMs), employed by KMD, play a key role in institutionalising CIS at the county level. CDMs are standing members of key decision-making forums such as CCCPCs, who are responsible for ensuring that WCCPC proposals specifically address climate change and uncertainty. They are also responsible for developing county CIS plans – which stipulate how and what services are provided – and facilitating two-way communication between KMD, county and community actors on weather and climate information (KMD 2018).

Resilience assessments and digital resource mapping: these participatory tools facilitate more informed discussion between communities and county government planners on factors that strengthen or weaken local livelihood systems in the face of climate variability and change (differentiated by production system, gender and age). These tools enhance public participation, feeding into the CIDP and annual development plans and enabling local people to explain the logic of their climate adaptation strategies to those outside their community, such as government planners or staff from non-governmental organisations. They provide an opportunity for county governments and communities to discuss how local livelihoods function and interact, factors that constrain their

resilience to the impacts of climate change and practical ways to build adaptive capacity and long-term resilience. Resource mapping enables planning at multiple scales, from community to cross-ward and cross-county levels, responding to the dynamics of local livelihood and adaptation strategies in the ASALs, which are typically cross-border in nature as a result of the high variability of natural resources.



3.4.4 Monitoring and evaluation

This component aims to strengthen existing county and national government M&E systems so they can track and assess whether or not the CCCF mechanism is appropriate and cost-effective for building local adaptive capacity and climate-resilient development for the most vulnerable communities and groups in Kenya. The pilot tested the appropriateness and added value of the strengthened M&E system based on TAMD, a twin-track framework that evaluates the extent and quality of climate risk management processes and actions (Track 1) and the associated development and adaptation outcomes (and their longer-term impacts) on the ground (Track 2). The pilot tested the TAMD approach in Isiolo and Kitui Counties, helping WCCPCs develop theories of change and relevant M&E indicators for public goods investments while also strengthening existing county government M&E systems to better support climate risk management.

3.5 CCCF operational features to build climate resilience

An over-arching premise of the CCCF mechanism is that county government support for community-identified and driven adaptation, often building on existing livelihood and adaptation strategies for managing climate variability and extreme events, is more sustainable, benefits more people and leads to transformative adaptation to address future climate change. To test this central premise, the CCCF mechanism introduced a number of operational features to address weaknesses in the formal government planning process (see Box 3) and strengthen the capacities of county government, communities and their institutions, particularly in natural resource management and planning and preparing for climate-induced hazards and opportunities.

In the initial pilot phase, the project was able to ensure the application of these operational features. However, as county governments increasingly took ownership of the mechanism and sought to institutionalise it within their planning systems, several lessons and challenges emerged around the acceptability and applicability of certain aspects of the mechanism (see Section 4.3).

The mechanism's initial operational features (see Table 2) were designed to:

1. **Channel the majority of climate finance** (currently 70% of the investment fund) **to the lowest level of county government** (the ward) on the premise that adaptation needs to be funded at a level that responds to community priorities and the specificities of the local context, which in the ASALs are highly variable. The significant development deficit in the ASALs, a major underlying cause of vulnerability to climate change, justifies that most of these funds are targeted at the lowest level to strengthen existing livelihoods and adaptation strategies. Notwithstanding this, climate finance is also needed at higher (county)¹⁴ government levels to finance investments that support and enhance community-driven adaptation strategies, which in the ASALs require a landscape-level approach; take a more strategic and longer-term approach to climate change trends; and align with the CIDP. The CCCF mechanism proposed this to be 20% of the fund. This feature ensures the principle of subsidiarity is applied.
2. **Strengthen community control over the choice and implementation of investments** in public goods that build their adaptive capacity in ASAL contexts, where investments need to be made at the landscape level as communities typically access local public goods (such as water and pastures) and social services (veterinary and health services) across different ecological and administrative boundaries. Following community consultation, Ward County Climate Planning Committees (WCCPCs) are empowered to prioritise investments against a set of strategic criteria (Box 6). If investments meet these criteria, the county government cannot veto them but must instead help ensure the proposals meet the technical criteria to ensure their success and sustainability. This feature also applies the principle of subsidiarity, enabling decisions on investments to be made at the most appropriate level.
3. **Encourage a more effective, participatory, inclusive and transparent planning process** that delivers high-priority investments that benefit the most vulnerable and provide good value for money. Prior information on the budget envelope for investments, coupled with an operational fund (currently 10% of the fund) to support community consultation and engagement in the public procurement process, gives WCCPCs better control of the planning process at the ward level. A rigorous selection process, based on public vetting against criteria of gender equity, public integrity, leadership and local knowledge rather than formal education, contributes to ensuring WCCPCs members are representative of and accountable to local people.

¹⁴ Sub-county government is an intermediary level that, while recognised as potentially important for climate adaptation planning, was not addressed by the Ada Consortium in Phase 2. Its relevance will be addressed going forward, particularly in contexts other than the ASALs, such as Kenya's lake, coastal and highland regions.

Component	Operational features	Premise
Fund	90% of fund is allocated for investments. Of this, WCCPCs prioritise 70%; CCCPCs 20%	The initial 70:20 split was based on the premise that adaptation needs to be funded at the lowest level to meet needs and respond to local contexts.
	(Initial) 10% of fund allocated for WCCPC operational costs and CCCPCs to administer fund	WCCPCs need to be financially empowered to ensure strong community engagement in identifying and prioritising investments, developing technically strong investment proposals, participating in public procurement and remaining accountable to local people.
	Funds are divided equally between wards, not according to population density or vulnerability; ward committees should consult each other to identify 'landscape'-level cross-ward investments	In ASAL environments characterised by climate and natural resource variability, planning and investments need to be at the landscape level as communities typically access local public goods and social services across different ecological and administrative boundaries. Cross-ward consultation should overcome the limitations of using wards as planning frameworks, promoting landscape-level/ecosystem-based approaches to planning.
	WCCPCs and CCCPCs informed of their budgets in advance of planning	Planning against known, guaranteed budgets encourages more effective, participatory, transparent and accountable planning, delivering high-priority investments that benefit the vulnerable and provide good value for money.

Table 2: Key operational features and premises underpinning the CCCF mechanism

Component	Operational features	Premise
	<p>WCCPCs are composed of elected community members, with public vetting against criteria of integrity, commitment, leadership, and knowledge rather than academic qualifications</p>	<p>Public vetting reduces the risk of political manipulation and exclusion of the vulnerable, builds consensus on those selected to serve and encourages accountability among those selected. Integrity, leadership and local knowledge are more important than academic qualifications, as WCCPCs can access technical assistance from county-level actors and receive training on project cycle and financial management, climate change and committee governance. Including customary leaders builds legitimacy of local institutions and provides a bridge between customary and statutory institutions.</p>
<p>Planning structures</p>	<p>WCCPCs are given operational funds to cover project costs, such as consultation, proposal design, tendering and M&E</p>	<p>This enables WCCPCs to function independently and ensures better quality consultation and accountability, identification of more effective investments that meet local priorities and funding criteria, better value for money in design and implementation of investments and more effective M&E. It also builds WCCPC capacities (skills, confidence) to participate more effectively in wider local governance and planning processes, creating effective local institutions for successful devolution and maintaining peace.</p>
	<p>WCCPCs participate in tendering process with support from CCCPCs</p>	<p>This enhances transparency, accountability and value for money, reduces the risk of political and economic abuse of power and builds WCCPC capacity to ensure and account for the good use of their CCCF budget allocation.</p>
	<p>CCCPCs cannot veto – and must strengthen as necessary – WCCPC investment priorities if in line with strategic funding criteria</p>	<p>WCCPCs remain in control of their adaptation priorities throughout the planning process, in line with the Constitution and County Governments Act. This reduces the risk of political interference and builds greater accountability of WCCPCs to local community.</p>

Table 2: (continued)

Component	Operational features	Premise
CIS and participatory tools	Resilience planning tools — resource mapping and resilience assessments — designed to align community planning with county government planning	These tools enable communities to articulate their knowledge of critical resources and resilient livelihood strategies in a way that county planners can understand, appreciate and support. This builds dialogue, understanding and respect between government actors and citizens, which is central to the success of a devolution agenda. It also identifies practical, cost-effective ways for county planning to strengthen local adaptive strategies and build longer-term resilience to climate change.
	County CIS plans	These plans enable the institutionalisation of CIS in all county-level development planning and budgeting. This in turn allows WCCPCs to identify investments that better prepare counties and communities to respond to and recover from climate-induced hazards and reduces climate-related risks on investments, bringing longer-term returns to communities.
M&E	Mainstreaming the TAMD framework into CIDP	Using TAMD builds the capacity of CIDP M&E systems to assess outputs, outcomes and impacts of climate adaptation and climate-resilient development.

Table 2: (continued)

4. Findings and learning

This section focuses on reviewing the evidence on the added value and effectiveness of the CCCF mechanism. In particular, we focus on its institutional benefits and effectiveness in improving government planning processes and how effectively the investments build household resilience to climate risks. We also review learning on the relevance and applicability of the mechanism's operational features within the current policy and legislative framework governing county planning in Kenya.

4.1 Effectiveness for improving planning, governance and institutional processes

4.1.1 Enhanced inclusion and participation of community in the planning process

The CCCF pilot led to the establishment of a legal framework in the shape of climate change regulations in Makueni and Kitui and climate change acts in Wajir, Garissa and Isiolo. These have formalised the establishment of CCCPCs and WCCPCs and made clear that the responsibility of developing investments lies with the ward committees, which need to work with communities to identify, prioritise and cost projects before submitting a prioritised list of investments to the CCCPCs for review (see Box 7). This approach supports the CCCF mechanism's principles of community-driven bottom-up planning and inclusion.

Box 7. Extract from Makueni Climate Change Fund regulations on role of WCCPCs

25(a) The WCCPCs shall:

1. Hold consultative meetings with communities together with relevant government planners, agencies and local organisations
2. Conduct participatory livelihood and local economy resilience assessments. These assessments shall enable different groups within the wider community to identify what improves or undermines their ability to manage challenges arising from increasing climate variability and long-term change
3. Use the findings to prioritise and design investments that will promote climate change resilience, growth and adaptive livelihoods based on agreed criteria
4. Prepare programme and project proposals, aggregate and coordinate sub-ward resilience needs and priorities identified and prioritised through community participation
5. Prioritise proposals and submit them to the CCCPC for consideration and approval and forwarding to the County Climate Change Fund Board for funding

Results from studies focusing on CCCF investments reveal a strong level of community participation in and knowledge of the CCCF mechanism development and implementation process driven and facilitated by the WCCPCs (see Box 8).

Box 8. Quotes illustrating community involvement in CCCF investments

“The project made us [the community] the centre of decision making. It was about us and our needs. It’s the first time this has happened here. We are used to waking up and finding their (county government) people and machines all over the place constructing things.” *WCCPC, Khorof Harar Ward*

““The community is highly empowered to monitor the prioritized projects, procure service providers and monitor their projects to get the best. This improves ownership.”

“The bottom-up approach is the best so far. It encourages ownership by the community and in essence overall county ownership.”

“We knew every aspect of this project. We knew how much was allocated. We knew what the contractor was expected to deliver. For the things we didn’t know, we knew where to get the information.” *Guticha WCCPC representative*

“This was the first time when the community through the WCCPC and had information before hand on the quantity and quality of construction materials. As part of the WCCPC monitoring team, I can confirm that we checked and verified all the procured materials to ensure that they were of the right quality and quantity as detailed in the BOQ [bill of quantities].”

“In addition to the cost of procurement, project supervision and monitoring is a key driver of costs for county government investments. In this case, the local committee carry out that role with oversight from WCCPC. This greatly reduces the cost of the projects.” *County procurement official, Garissa County*

“The establishment of ward committees led to community ownership in the sense that the community were tasked to draw out proposals and seek funds against the activities proposed. They were to manage the funds and therefore a sense of ownership. The implementation of the project activities was well done.”

“Working strategically with local-level committees who are part and parcel of communities makes it easier for the WCCPC to make critical resilience building investments at the local level. The Isiolo CCCF structure saves us time and saves communities from the effects of climate hazards.” *CCCPC, Isiolo County*

Sources: Ada Consortium (2018a); Crick et al. (2019)

Surveyed households were positive about their involvement in the consultation and decision-making process, and saw benefits from the process and the investments; fewer than 1% were critical of the WCCPC. Respondents also suggested that the greater focus on public participation had improved standards of delivering on investments, the rigour of decision making and the way contractors implemented the investments (Ada Consortium 2018a; Crick et al. 2019). Becoming involved in the decisions, accountability and governance of CCCF investments has also unlocked considerable community co-investment, mainly through in-kind labour (MacGregor 2018).

In one study, 64% of households surveyed invested time and materials in their CCCF, and the labour and material they provided reduced implementation costs. In some cases, there were greater co-benefits and investments by communities following CCCF investments — for example, in Makueni County “the project did not fully utilize the potential of the rock catchment because the tanks are too few. This encouraged community to invest in additional tanks for storage for use during the dry season. Inspired by this, the neighbouring school (Masue Primary) has also acquired additional tanks for storage (two 10,000lts tanks and repaired an old 70,000L masonry tank) to store water for the dry seasons for school children (the school now has boarding facilities since the water became available in 2017).” (Ada Consortium 2018a; Crick et al. 2019)



Community participation in Kitui County Photo by Jane Kiiru

Evidence is also emerging that this enhanced consultation process has had positive effects on community participation in the wider planning process, with the CCCF mechanism providing a platform where local communities and county technical officers can interact. Through the CCCPCs and WCCPCs, county technical officers are interacting more frequently and effectively with community members. For example, county officers in Makueni and Wajir regularly undertake monitoring visits where they interact with local people, who make demands for a variety of technical inputs, such as livestock vaccinations. In Isiolo and Wajir, county planning officers insisted on the presence of WCCPCs members at the 2018–19 annual public participation process for developing annual development plans and budgets (Elhadi 2018).

Community consultations have become more participatory and communities have strengthened their political voice, increasingly holding county planning departments to account. This, in turn, is making the planning process more socially accountable and transparent. In Kitui County, for example, communities have demanded copies of county budgets and plans and are meaningfully engaging in the CIDP review process (Elhadi 2018).

The CCCF mechanism strongly encourages including all stakeholder groups, including women and youth. For example, the regulations and acts require a minimum number of women and youth as members of the WCCPCs.¹⁵ This is also the case for some of the CCCPCs, although at the county level it is more difficult to influence representation for better inclusion of women and youth as the CCCF legislation membership is defined by sector speciality rather than specific social groups.¹⁶ County governments are also dominated by older men, which exacerbates the problem. For example, in Isiolo, not a single woman or young person sat on the CCCPC as a government technical officer; where

15 For example, the Makueni regulations stipulate that the WCCPC include two women's representatives, two youth representatives (both genders) and a representative of people living with a disability (Government of Makueni County 2015). The Wajir CCCF Act states that the WCCPC will include "(i) one person nominated by elders in the ward; (ii) one person nominated by women in the ward; (iii) one person nominated by the youth in the ward; (iv) one person nominated by persons with disabilities in the ward" (Wajir County 2016).

16 While the Makueni regulations require the CCCPC to include representatives of women, youth and people living with disability, the Wajir Act does not specifically mention including representatives in the CCCPC. Instead, it indicates specific offices rather than social groups.

women and youth were present, it was as WCCPC representatives at CCCPC meetings. This illustrates the challenges of maintaining innovative features when moving from a pilot and project approach to an approach that is fully integrated within government processes and structures.

The CCCF mechanism has various ‘initiatives’ in place to implement the provisions within the CCCF legislation for enhanced participation of women at the WCCPC level, such as community sensitisation campaigns on the importance of the committees including men, women and youth before WCCPC elections and having no education requirements for WCCPC members, which has particularly benefited pastoralist women, since they typically have low literacy levels (Bonaya and Rugano 2018). Within the CCCF mechanism, WCCPC members also receive training and capacity building. This is particularly important for women, who often lack initial confidence and skills for public engagement. Finally, inclusion criteria ensure that the views of every community group are reflected in the final priority investment list. The WCCPCs must provide evidence, showing the involvement of all stakeholders – especially women and youth – in the process. Where women’s views do not come out strongly enough, women-only meetings must be held to rectify this (Bonaya and Rugano 2018).

There is anecdotal evidence that the focus on inclusion is enhancing women’s engagement in the planning process at the ward level (see Box 9).¹⁷ In some WCCPCs, women have been elected to executive positions, such as treasurer; in others, they are leading community consultations alongside men to prioritise CCCF investments. This helps capture women’s voices in pastoralist communities, where women have traditionally not spoken alongside men in public events. Women are also actively contributing to and shaping the design of investments to ensure that domestic use of water is considered in addition to livestock. The CCCF mechanism seems to be helping change communities’ attitudes towards women and supporting women and youth to become more visible and active within communities – for example, women now sit with men in meetings and on other platforms to discuss issues around community development (Bonaya and Rugano 2018).

Box 9. Quotes illustrating women’s involvement in CCCF planning

“The idea to fence off Harr Bibi pan and install a piping and pump system that will channel water to the water kiosk and troughs for domestic and livestock use was made by Fatuma (pseudonym) during Kinna ward Community consultation meeting. This additional investment has been of great benefit to all because we now have water for domestic use and livestock throughout the dry period unlike in the past when water only lasted two months due to contamination because of uncontrolled access by livestock.” *Chair, Kinna dedha*

“I am the only female representative on Kinna *dedha*. After the experience of CCCF [mechanism], men begun appreciating the importance of involving women in decision making. However, as much as we appreciate the recognition and honour to have representative on *dedha*, I am not invited to all their meetings like it happens with WCCPC meetings.” *Female dedha representative from Isiolo County*

“As I walk around, people now ask me directly about our projects, now I have empowerment and people realise who I am.” *Female youth representative from a WCCPC*

Source: Bonaya and Rugano (2018)

¹⁷ We use the term ‘anecdotal evidence’ here as there has not been a specific study focusing on gender and the CCCF mechanism’s inclusion principle and whether the mechanism has enhanced the engagement of women and youth in planning across the five counties. However, studies to date do reveal examples of enhanced participation of women in planning. The Ada Secretariat has commissioned a gender and generational study, which should reveal the impacts of CCCF investments on women and youth in greater depth.

Some of the women WCCPC members have also taken up leadership roles within their communities, including as ward administrator, assistant chief and teacher. Table 3 summarises the gender composition of WCCPCs and user committees across the five counties, highlighting the strong presence of women on these committees.

County	Number of WCCPCs/members			Number of user committees/members		
	Committees	Men	Women	Committees	Men	Women
Garissa	3	24	9	3	7	8
Isiolo	6	41	18	8	39	22
Kitui	10	75	35	12	64	43
Makueni	6	45	21	15	80	55
Wajir	12	74	22	24	115	47
Total	37	259	105	62	305	175

Table 3: Gender composition of WCCPCs and user committees across the five counties¹⁸

In Makueni County, there are reports of inclusion being extended to include physically challenged people. For example, in Mtito Andei and Mbitini wards, people with disabilities were part of the teams that advocated for water distribution points to be placed closer to the village; as a consequence, water harvested from the Masue rock water catchment is distributed downstream for easy access.

Yet, enhancing women’s voice in communities and inclusion in decision making and planning remains a complex process (Bonaya 2018). In pastoral communities, unwritten, informal rules and gender norms are deeply entrenched in their culture and traditions. For example, in Isiolo’s Borana pastoral communities, women and youth are excluded from the *dedha*, a customary natural resource management institution that regulates access to water and pasture resources. Similarly, the Samburu institutions have rules that prevent young men from participating with other members of the community in social and political events. And while women have gained in inclusion, they still face barriers to full involvement – as the quote in Box 9 shows, although women in Isiolo County have a representative within *dedhas*, their engagement in decisions remains minimal. This illustrates the complexities of inclusion among communities with entrenched discriminatory gender and generational norms, but shows the potential of challenging such norms (Bonaya and Rugano 2018).

18 For Isiolo, the number of user committees only represents a selection of total user committees.

4.1.2 Impact on CIDP and other government planning processes

The climate change regulations and acts established in the five counties make it clear that the CCCF mechanism process needs to be linked to the CIDPs, the counties' main development plans. CIDPs are meant to ensure effective coordination of government and stakeholders, reflect local needs and priorities and be developed in a participatory and inclusive way (Ada Consortium 2018b). Anecdotal evidence is emerging that the CCCF mechanism is having positive knock-on effects on CIDPs by integrating climate change into annual development plans (Ada Consortium 2018a; Elhadi 2018).

There is some evidence that the mechanism devolving decision making to WCCPCs and its emphasis on participation and inclusion is strengthening the CIDPs' approach to citizen/community participation and inclusion (see Box 10). Public participation has also improved in some areas, with passive formality giving way to active community engagement (Ada Consortium 2018a). There is also evidence that WCCPCs are becoming involved in the annual planning process and are more regularly consulted on development matters (see Box 10). In interviews, county officials stated that the CCCF mechanism has highlighted the value of participatory planning in generating effective, and efficient public goods investments that represent value for money, while some wards within Makueni and Wajir Counties have used the WCCPC structure as a model to establish ward development planning committees (Elhadi 2018). The CCCF mechanism has strengthened vertical linkages between communities, wards and counties, increased transparency in decision making and planning and improved relations between WCCPCs and CCCPCs and other county actors. Interaction and learning between ward and county actors have increased, with ward representatives invited to county strategy meetings (Ada Consortium 2018a).

There is also anecdotal evidence that the CCCF mechanism has helped integrate or mainstream climate change concerns in planning and budgeting (see Box 10). For example, in Makueni and Wajir Counties, the WCCPCs were involved in developing and validating county annual development plans as well as in the second phase of the CIDPs. In Isiolo County, WCCPC members were also engaged in the development of the CIDPs. The CCPCs see the second phase of the CIDPs as an improvement on the first phase. Isiolo County's Livestock Strategy and Implementation Plan also integrates climate change considerations (Elhadi 2018).

Box 10. Quotes illustrating the governance/institutional benefits of the CCCF mechanism

Enhanced inclusion, participatory planning and appreciation of its value

“Previously, there was no structured consultation on project implementation, decisions were made in the boardrooms. With the CCCF mechanism, there is continuous consultation, which takes a lot of time. Although it is time consuming, the quality of projects [is] of higher standards and [they] serve [the] community better.” *Isiolo CCCPC member*

“Through the CCCF institutional framework under which the WCCPC is established, the community has a formal relationship with the county government through which they raise development concerns some of which goes beyond climate change.”

“Planners now look out for views of ward committees to capture in annual plans since [they] represent local priorities, and as a result WCCPCs are now keen on participating in annual planning; e.g. WCCPC [is] now presenting written submissions during public participation.” *Isiolo town planner*

“The CCCF is providing a working example of an investment model that drives financing, decision-making and responsibility to the local level.” *WCCPC members, Wajir*

“We are now invited to county annual planning meetings because our contributions/views present the top needs as prioritised by the community and this is what planners want to have captured in annual plans.”

“The way the community [is] engaged in public participation changed. It is never a passive formality thing to tick a box on the side of the county government; community are very much actively engaged, asking question on previous priorities they have set for the counties, questioning commitments on the county side, insisting on what is of high priority to them and pushing for accountability on the side of the government.”

Climate change mainstreaming in CIDPs

“The CIDP has borrowed the principle of climate proofed projects from the CCCF.”
Makueni technical officer

“The county is now more aware on the importance [of] having climate change mainstreamed in the CIDP. The first CIDP in Isiolo had to be reviewed to have climate change mainstreamed for the first time.” *Isiolo county technical officer*

“As a result of engaging with the CCCF mechanism, the CCCPC members reported that the current CIDP is better than the previous one and that climate change issues are aligned in all sectors.”

“Some of the WCCPC members like myself were invited to participate in the 2018–2022 formulation at the county level. It is my view that Makueni County has made strides, particularly in 2018–2022 CIDP where climate change is mainstreamed. This is one of the key outcomes of the CCCF legislation which created institutions involved in articulating climate issues into the CIDP.”

“The CIDP has borrowed the principle of climate-proofed projects from CCCF.”

“The county assembly speaker talks about how the CCCF mechanism changed the perspective of the county assembly on climate change.”

The CCCF mechanism as a model to be replicated

“County government using the CCCF investment as a model for other investments.”

“The empowered communities through the elected members of the WCCPC holding the county government accountable.” *WCCPC members, Wajir*

Sources: Ada Consortium (2018a); Elhadi (2018); MacGregor (2018)

4.1.3 Integrating climate information in the design of investments to build climate resilience

Climate information and resilience planning tools form one of the CCCF mechanism's four key components. Appropriate, relevant and timely climate information is critical to enable CCCPCs and WCCPCs to prioritise and design investments that build resilience to a changing climate. WCCPCs and communities should integrate climate information from KMD into their participatory resilience and vulnerability and capacity assessments to ensure they develop investments in a way that enhances households' and communities' resilience to climate risks.

The CCCF mechanism has supported the development and validation of county-level CIS plans for all five counties. The success of this process has led KMD to also develop CIS plans for other counties and train those counties' CDMs. The Ada Consortium, which includes KMD, is working with the Kenya School of Government to deliver a series of workshops to county government officers on CIS plan development and mainstreaming climate change in budgeting and development. Nevertheless, challenges remain, including the need for more downscaled information — especially in ASALs, where rainfall is highly variable in time and space — and more funding for implementing CIS plans and training CDMs, especially to ensure that they can target climate information to specific groups, such as pastoralists.

The CCCF mechanism's pilot phase has helped KMD rethink the way it delivers county-level CIS. All CDMs now report monthly, using the M&E tool developed by the Ada Consortium. In a 2017 study to evaluate the implementation, effectiveness and sustainability of CIS in Makueni and Garissa Counties, examine the way the local population used CIS and explore the benefits experienced, 50% of farmers surveyed said they benefited from decisions they made based on CIS information. They indicated that they plan better, which has improved yields and reduced losses. The study highlighted that, although users access a variety of CIS products, they preferred daily and seasonal forecasts. Users in both counties were particularly interested in accessing information about rainfall amounts and onset dates. The study identified local radio as an effective mode for disseminating CIS, reaching over 90% of the surveyed population in both counties (Ada Consortium 2017b).



Garissa County Director Meteorology explains how the evaporation pan works Photo by Abdirahaman Kussow

The pilot tested several channels for disseminating CIS products such as forecasts and updates, including radio, bulk SMS, CIS intermediaries and extension officers (Ada Consortium 2018b). This led to improvements in terms of reach and relevance of information provided to end users. In Kitui and Makueni, KMD also piloted a two-tiered CIS intermediary system which provided climate information via SMS through primary and secondary intermediaries. The former attended a 2.5-day training of trainers course, designed to enable them to receive, understand and effectively communicate climate information in a way that is easily understood, to support appropriate application of climate information and to provide feedback on its use and benefits. Selected from across institutions and agencies with existing extensive reach, these primary intermediaries – who included individuals from county government administration responsible for agriculture and livestock, religious and community leaders and non-governmental organisation staff – were then able to deliver half-day trainings for secondary intermediaries (Ada Consortium nd).

The pilot also revealed several challenges around climate information. In Kitui and Makueni, these included ensuring the sustainability of intermediaries, as many county government officials transfer across counties, and finding ways to effectively reach the most marginalised (Ada Consortium nd). Ultra-poor households are also failing to benefit from improved CIS (Apgar et al. 2017). In Garissa and Makueni, there is not enough funding and infrastructure to train the staff needed to improve technical support and increase dissemination of CIS to potential users, to build the capacity of CIS users – in particular, to better understand forecast terminology such as probabilities— and for additional observation stations to improve coverage and downscaling of climate forecasts to village level. In Garissa County, the CIS plan has also not been fully implemented (Ada Consortium 2017b). In certain communities, religious beliefs make it harder to accept the concept of ‘predicting’ climate.

At the local level, CIS information has not yet been systematically integrated into the design of all investments. For example, technical specifications for developing water pans do not accommodate potential run-off from years of high and low rainfall or projected changes in rainfall patterns and intensity. However, anecdotal evidence suggests that integrating climate information into the investment design has made them more resilient to climate risks. For example, in Makueni, rainwater harvesting structures (water pans and sand dams) that were designed in consultation with county meteorological officers and included climate information were better able to withstand major storms than those that did not include climate information in their designs. In Isiolo, the management of grazing areas as per the *dedha* regulations has improved following timely dissemination of CIS through established communication channels such as the community radio station and intermediaries. In Kitui, the 2016 October-December rainy season was expected to be below normal, so agricultural officers advised communities to plant green grams (mung beans) instead of maize. While this decision led to a good harvest of green grams, the lack of markets for this product led to mixed results.¹⁹ This highlights the complexities of ensuring climate information leads to effective decision making. To address the lack of integration of CIS into the design of investments, Ada Consortium is working with KMD to conduct a survey to identify the nature of CIS needed for different types of investment and the implications for technical investment design.

19 These examples from Makueni, Isiolo and Kitui are from personal communication with the KMD’s Senior Assistant Director, Public Weather and Media Services.

4.1.4 Value for money

The Ada Consortium's 2018 study provides the best available assessment of the value for money of CCCF investments. The study surveyed 369 households across Isiolo, Makueni and Wajir Counties, interviewed 30 key informants from CCCPCs and WCCPCs and ran 30 focus groups at the community and ward levels.

The study reveals that direct benefits from the investments far exceed the costs of implementing the CCCF mechanism paid by development partners — for example, respondents reported 100% greater access to water for household and livestock and a two-hour saving per household per day on water collection (equivalent to 700 hours a year). Using this figure for time saved, the authors estimated direct benefits of more than KES 400 million (£3 million) a year across the three counties, with average net annual benefits of more than KES 14,170 (£109) per household.²⁰ This represents an 8% increase in annual household income. Development partners have invested £866,387 in the CCCF mechanism in the three counties since 2011. Averaged over the three counties, this comes to around KES 3,640 (£28) per household, so direct benefits exceed overall investment costs by a factor of three each year (Ada Consortium 2018a). Based on that indicator alone, the study results suggest that the CCCF mechanism offers value for money and is cost-effective.²¹ These findings reinforce earlier findings that locally managed funds can be more efficient and effective, and give better value for money, than nationally managed funds when building resilience in rural communities (Nyangena et al. 2017). Through their interviews and focus groups, the authors also found a general perception that CCCF mechanism projects were cheaper and more efficient than other projects that were implemented in the more traditional, top-down manner (Ada Consortium 2018a). However, further research is required to strengthen the evidence supporting this perception.

4.2 Effectiveness of investments in putting communities on a pathway to better resilience

The CCCF investments in the five counties aim to build household and community resilience to climate risks and climate change. But building resilience is a slow, complex and multi-faceted process. This is particularly true in ASALs, where a significant development deficit remains the core driver of vulnerability to climate risks. ASALs require a series of investments to close this development gap as a first step to improving their resilience to a changing climate. Most wards across the five counties have only had one round of investments, so it is too early to judge whether CCCF investments are building resilience to climate change. But there is some evidence that the CCCF investments, identified and prioritised by local people in support of their livelihoods and adaptation strategies, are having beneficial impacts on households and communities. In this section, we present this evidence, while recognising that further studies are required to build a body of evidence over time of the impact of CCCF investments on people's resilience to a changing climate.

The dominant livelihood activities in the five counties are pastoralism (Isiolo, Wajir and Garissa) and a mix of rain-fed agriculture and livestock keeping (Kitui and Makueni). Access to water and effective land and natural resource management are critical to the sustainability of these livelihood strategies and to building their resilience to climate risks. Strengthening customary institutions, which play a key role in managing these resources, is also critical for resilience as many have been eroded over time (Tari and Pattison 2014).

²⁰ This represents a minimum figure, as it does not include direct and indirect benefits of communities' enhanced climate change resilience, access to water, reduced water costs, new economic opportunities, participation in policy processes and capacity built through the CCCF mechanism (Ada Consortium 2018a).

²¹ The authors suggest these are also minimum figures, as they do not include investment in all aspects of the CCCF mechanism by development partners (investment in developing the climate change acts), national government and county-level authorities (supporting activities on climate change and rural development) and communities (decision making, building, delivering and governing projects that enhance climate change resilience) (Ada Consortium 2018a).

To support the development of investment proposals, the pilot carried out local resilience assessments (called participatory vulnerability and capacity assessments in some counties) in all communities. Most identified water scarcity (often due to drought) and access to clean and reliable water as key challenges affecting their resilience to climate risks. This was reflected in their prioritisation of investments, which have mostly focused on water infrastructure (water pans, earth and sand dams, boreholes, shallow wells and rock catchments) to increase the availability of and access to clean water for livestock and domestic use and ensure its reliability for longer periods. In Isiolo County, several investments also focused on other dimensions of local livelihoods and adaptation strategies (see Box 11).

For each investment, WCCPCs developed a theory of change to show how it would ultimately lead to greater climate resilience. For example, the theory of change for the Masue Rock catchment in Makueni (see Annex 3) shows the cascade of benefits that increased access to clean water for domestic, livestock and irrigation use can bring about over time: improved human and livestock health, reduced distance and time spent fetching water and increased food production, which lead to increased household incomes, improved living standards and increased food security, water sufficiency and a better environment, all of which ultimately increase resilience to climate change.

Although there have been no longitudinal studies to assess the impacts of CCCF investments over time, several studies have assessed their impacts through various approaches from focused qualitative case studies to large-scale household surveys (Ada Consortium 2018a; Bonaya and Rugano 2018; Crick et al. 2019; Tari et al. 2015). All these studies point to strong positive impacts of CCCF investments on beneficiary households and communities (see Table 4).

Box 11. Isiolo investments for strengthening community livelihood and adaptation strategies

In Isiolo County, investments focused not only on increasing water availability and access but also on other elements critical to pastoralists' livelihoods and their resilience to climate risks: i) strengthening the capacity of traditional *dedha* councils to improve management of dry season water and pasture reserves; ii) improving livestock health and disease control through the rehabilitation of a veterinary laboratory, a cross-county vaccination programme and livestock survey; and iii) improving access to timely weather, security and market information through the establishment of a community radio station. In this regard, the investments took a more systemic approach to building resilience.

The first round of investments enabled the *dedha* to review their institutional functions and procedures and hold strategic meetings to agree rules of resource access subsequently negotiated with pastoralists from neighbouring counties. *Dedha* members also invested their own funds to enhance resource surveillance and management of the grazing areas for the long dry season of May-October 2014 (Tari et al. 2015). It is estimated that the *dedha* invested around five times the amount they had received from the Climate Adaptation Fund (the precursor to the CCCF).

An assessment of these investments revealed important benefits for the local communities and for pastoralists migrating into Isiolo from the neighbouring counties of Marsabit, Wajir and Garissa (Tari et al. 2015): the rotational grazing systems put in place ensured that water and pasture reserves were not depleted during the extended long dry season; improved resource governance reduced security risks and increased time spent at home due to the reduced need for migration in search of water and pasture; incomes were enhanced due to higher prices from improved livestock quality; and employment and skills development opportunities for the youth were improved through their involvement in resource surveillance (Tari et al, 2015).

The benefits from the revival of the *dedha* through these investments endured beyond 2014 as they helped preserve strategic drought reserves in Merti and Kinna, which pastoralists could access to cope with the droughts of 2014, 2015 and 2016 (Ada Consortium 2017a).

Changes observed as a result of CCCF investment	Quotes from interviews and focus groups
Reduced livestock deaths	“Wajir Bor has plenty of pasture, even in bad droughts. Water scarcity has been a key cause of drought mortality for us and most of our neighbours. The pan has saved us from losses as a result of water scarcity because water now lasts longer than even pasture.” <i>WCCPC member, Wajir</i>
Increased water availability throughout the year	“We are still using the April/May 2018 rainwater thanks to the fence and the other investment on the Jehjeh pan. Previously, the pan could not last more than four months.” <i>WCCPC member, Wajir</i>
Cleaner water for domestic use	“Before the water kiosk, we competed with livestock from the same source. The water we used was full of livestock fur, mucus and animal droppings. With the water kiosk, we draw clean water.” <i>Female beneficiary, Wajir</i>
Livelihood diversification/ new economic activities and businesses	<p>“I have started to grow and sell tree seedlings now that I have water and this has boosted my income.” <i>Youth, Makueni</i></p> <p>“We have a lot more time for various economic activities since we don’t have to trek to water points and wait for long hours.” <i>Interviewee, Makueni</i></p> <p>“I have a kitchen garden where I employ one person to produce vegetables for me and for sale in the local market.” <i>Woman, Makueni</i></p>
Economic benefits	<p>“The project provided water for livestock use lasting the entire dry period of 2017. This translated to substantial saving for most households that keep livestock, because in similar situations before the earth dam was established families were forced to buy borehole water from Malili for their livestock.”</p> <p>“The Ngai Ndethya Mega Sand Dam captured and stored water, which was available through the year... Farmers were able to produce in and out of season, improving food security and earning income.”</p>
Other	“Migrating away from home exposed us to more losses due to disease, conflict over water and pasture and stress from being away from home. Now we only migrate away from here in severe drought when all the pasture is depleted.” <i>Herder, Wajir</i>

Table 4: Observed benefits from CCCF investments

These studies also support the findings of earlier studies that show the benefits — including economic benefits — of the pilot projects first implemented in Isiolo County (Orindi 2014; NDMA 2014; Tari et al. 2015; Brooks 2017; Nyangena et al. 2017; Orindi et al. 2017). Both the earlier and more recent studies reveal that households across the five counties are benefiting from improved access to water for domestic and livestock use and reduced time spent fetching water. There is also evidence that these benefits are leading to a cascade of additional direct and indirect benefits, including: improved livelihoods and food security; new economic opportunities such as vegetable gardens, small-scale irrigation and tree nurseries; improved incomes from selling milk, meat and other produce; reduced cost of accessing water; improved livestock health and better quality meat; fewer conflicts within households and communities and between neighbouring villages; educational benefits for boys and girls who can attend school for longer; and strengthening of customary natural resource management institutions (Nyangena et al. 2017; Ada Consortium 2018a; Bonaya and Rugano 2018; Crick et al. 2019). Over 95% of respondents in the 2018 household survey in Isiolo, Wajir and Makueni viewed the changes resulting from CCCF investments as positive (Ada Consortium, 2018a). All these benefits represent key elements of the investments' theories of change that can, if sustained over time, contribute to building greater resilience to climate risks.

Studies have also identified other anecdotal benefits. For example, in the case of the Masue Rock catchment investment in Makueni, community members reported an improvement in community self-esteem and image, which resulted in changing its name from Kwangiti (meaning place of many dogs) to Masue, the name of the rock from which they now tap water. There is also anecdotal evidence that this project is inspiring community members to set up their own projects. For example, the project inspired the local Anglican bishop to set up a tree planting initiative to improve vegetation cover in the village; they plant a tree for every child confirmed into membership of the Church. At the time of the interview, the county government minister had offered to make the bishop goodwill ambassador for the environment to market the idea to the county's other denominations (Crick et al. 2019). Beyond the impact of individual investments, the CCCF mechanism's overall approach — with its strong focus on community participation in decision making and building ward committee capacity through training — has led to broader benefits for communities and individuals, including enhanced job prospects for some individuals and greater community cohesion (see Box 12).

Box 12. Quotes illustrating broader CCCF benefits to individuals and communities

“Because of the training, I applied for a job and got employed as an early childhood development teacher. The training added value to my CV and now I have a job.”

“Before getting to this committee, I was just a herder in the bush. I knew very little Kiswahili. But now after getting to this I am knowledgeable. I have even made a Mabati (iron sheet) house, all my kids are in school and now I am able to mix up with people in town. Before, I had not seen the need to take my children to school. I thought I was wasting time, I thought they were better off herding, but the seminars and outings have opened up the world to me.” *Chair, Oldonyiro WCCPC*

“The CCCF mechanism of establishing the WCCPCs has served as an eye opener to the members and community at large on what they are capable of achieving together and there is an increased sense of community cohesiveness and collective action.”

Source: Ada Consortium (2018a)



Donkeys drinking water from a renovated water trough Photo by Jane Kiiru

The studies also reveal that women are key beneficiaries of CCCF investments. As a result of the investments, women have greater access to water for domestic use and spend less time fetching water. They use the time they have gained on other domestic chores, supporting their children's schoolwork, other livelihood activities or setting up small businesses (see Box 13). For example, in Isiolo and Wajir Counties, women have set up makeshift food kiosks at water points where they sell refreshments and meals to herders. Similarly, in Makueni, women are using water drawn from the sand dams to irrigate kitchen gardens, where they grow vegetables for home use and sale. Girls now have more time to spend on their schoolwork (Bonaya and Rugano 2018).

Box 13. Quotes illustrating the benefits of CCCF for women and children

“I used to take at least one hour to reach the water source, an hour to wait and another hour to get back with one jerry can of water that had cost me 10 shillings. I have now connected the water to my storage tank at home and can get three jerry cans for just 10 shillings. The time is now available to me and I use it to do my kitchen gardens that save me money that I would spend on buying vegetables. I have also started a tree nursery as a new source of income now that I have enough water and the seedlings do not dry up. I plant and water them in the dry season and I sell them when the rainy season comes for the rest of the community to buy and plant.” *Woman, Makueni*

“We were happy about the consultation and the issues addressed our core problems of water. We were the prime beneficiaries of the project. The school-going children were struggling because they had to fetch water before going to school and that was really affecting us.” *Women-only focus group, Oldonyiro*

“We have a lot more time for various economic activities since we don’t have to trek to water points and wait for long hours.” *Woman, Makueni*

“Children in the schools do not have to carry water and they are learning to clean their hands, which will improve hygiene. They are spending more time in school, which should improve their grades.” *Woman, Makueni*

“I am familiar with the impacts of climate change in our community. With depressed rains, we would be forced to leave school at 1pm to go in search of water from the river that was over an hour away. That meant two hours of useful class time would be spent looking for water rather than studying. When we came back, we were too tired to continue reading and just waited to go home. At home, you would be forced to go to the river again to get water for the family before settling to have dinner and do homework. But that has changed since the project. The school connected to the project water and the need to go for river water was completely eliminated. We have been able to spend more time studying and in fact our mean grade for the school went up considerably in the 2018 exams compared to earlier years. I would attribute this to availability of clean water within the schools that ensured we do not have to spend study time trekking to collect water for home and school. The school looks cleaner, we water the trees which we plant and very soon we shall have a forest at school.” *Schoolgirl, Makueni*

“You see those men; they will sit under that tree from morning to evening doing nothing. When they come home in the evening, they want to be served food. Before the project, many of these women (pointing at fellow women) were physically assaulted for failing to serve their husbands’ food on time. The woman leaves home in the morning to look for water, trekking long distances, because there was not even one sand dam around here. You arrive home to begin lighting fire so that you can quickly prepare the evening meal. Before you even start, the man arrives from a day of chitchat with friends and begins to quarrel with you for preparing meals late. The next thing, the woman is beaten up.” [Others express agreement.] *Woman, Isiolo*

“In the past, women were forced to draw water at night, which exposed them to dangers of attack by wild animals. The water kiosks have not only reduced the distance where clean water is available but also reduced the need to draw water at night.” *Woman, Garissa*

Sources: Ada Consortium (2018a); Bonaya and Rugano (2018); Crick et al. (2019)

4.3 Relevance and applicability of the CCCF mechanism's operational features

In this section, we present learning around the relevance and applicability of the CCCF mechanism's 11 operational features, drawing on findings from our 2018 study (Ada Consortium 2018a) and the CCCF technical review workshop in Nairobi (Ada Consortium 2018c).

4.3.1 Operational features of the funds

1. Ninety per cent of the funds is allocated for investments (70% prioritised by WCCPCs and 20% by CCCPCs)

Premise: Adaptation needs to be funded at the lowest level to meet needs and respond to local contexts.

Learning: To establish optimal distribution of funds between ward and county-level investments.

Most of those consulted agreed with the premise that adaptation is best funded at the lowest level through community-driven investments to build community resilience to climate change. As a member of the Isiolo CCCPC noted, “the majority of money is supposed to be devolved to where the rubber meets the road. The 70% is a very good idea.”

Notwithstanding the need to ensure most climate finance reaches the lowest levels, there were also views that, subject to the context of a specific county or year, it will be necessary to review the percentage allocations between county and ward. For example, counties that cover several ecosystems requiring transboundary projects may need to increase the county allocation to 30% or more.

2. Ten per cent of the funds is allocated for WCCPC operational costs and to CCCPCs to administer the fund

Premise: WCCPCs need to be financial empowered to ensure they develop high-priority and technically sound investments that build community resilience (see Operational feature 6). The initial 10% allocation provided an annual average budget of KES 800,000 (£6,100).

Learning: To establish the minimum budget for managing CCCFs and the full project cycle.

Opinions were united that KES 800,000 a year was not enough to cover the costs of community consultation, developing investment proposals, procuring technical support from county staff — for example, paying transport costs for site visits — monitoring the work of service providers and participating in county-level meetings, such as CCCPC meetings and the public procurement process. Respondents also recognised that operational costs will vary between WCCPCs in the same county and across counties due to a range of factors including the ward's geographical size, the distribution of settlements and their proximity to roads, the spread and condition of the road network, the degree to which communities are mobile and the reach and strength of mobile phone networks. Certain cost drivers are dynamic and likely to change from one year to the next due to changing circumstances such fuel prices, improvements to infrastructure and so on.

The 10% allocated to WCCPC operational costs was widely interpreted as an administrative overhead. This does not comply with the provisions under the PFM Act, which allows a maximum of 3% for administrative costs. In Wajir, the Controller of Budget requested revising the Wajir CCCF Act to cap administrative costs at 3% to comply with the PFM Act.²² This has been done and costs that are not

²² The Controller of the Budget is an independent office that oversees the implementation of national and county budgets and authorises the withdrawal of public funds. See <https://cob.go.ke/>

strictly administrative in nature — such as community consultations, seeking technical assistance to integrate climate change into the design of investments and M&E — which were previously budgeted within the 10% operational fund have been reallocated to the capacity building and M&E budget lines.

3. Funds are divided equally among wards — rather than according to population density or vulnerability — with ward committees expected to consult each other to identify cross-ward investments at a ‘landscape’ level

Premise: In ASAL environments characterised by climate and natural resource variability, planning and investments need to be made at the landscape level as communities typically access local public goods and social services across the ecological and administrative boundaries. Cross-ward consultation is designed to overcome the limitations of using administrative units of wards as planning frameworks and to promote landscape-level/ecosystem-based approaches to planning.

Learning: To test which formula to use to judge the size of allocation per ward.

Study respondents and attendees at the CCCF technical workshop all agreed the equal distribution of the funds across the wards to promote landscape-level planning was inappropriate. They proposed instead that this be done at the county level, with some saying this justified increasing the allocation from 20% to 30% (see Operational feature 1). Opinion was unanimous that ward allocations should depend on several criteria, including geographical size, state of development infrastructure, degree of poverty and vulnerability to climate change, demonstrated by these quotes:

“The equal distribution of the fund was illogical as it did not take into consideration population to serve or better still the magnitude of the community problems and the populations to benefit.” Mtito Andei WCCPC, Makueni

“Sharing resources equally across all wards is not fair.” “I have reservations with that because different wards are at different stages of economic development.” County Executive Committee member for environment, water, natural resources and energy, Isiolo

“The best model should be that each ward should have a minimum equal allocation to start with up to a certain amount. The other additional should be based on criteria that considers factors such as needs, vastness and vulnerability.” Member of Isiolo CCCPC

4. WCCPCs and CCCPCs are informed of their budgets in advance of planning

Premise: Planning against known guaranteed budgets encourages a more effective, participatory, transparent and accountable planning process that delivers high-priority investments that benefit the vulnerable and provide good value for money.

Learning: To assess the added value of informing committees of budget envelopes.

The premise underpinning this operational feature was widely endorsed:

“[As] we know the budget allocated to wards for development and what is in the climate change kitty, prioritisation will be on a different scale.”

“The community will also be aware of the budget allocation and therefore demand better and quality services.”

“Community [is] able to plan and narrow down on investments that fit within their budget.”

“Because the community knew the budget, they were able to plan for a project that could be supported by the available resources. It also helped in reducing suspicion of corruption associated with projects supported by the government. Further, by knowing the budget set aside for the project, communities

owned the project following keenly on all stages of project implementation with intention of achieving value for money.”

Participants at the technical review workshop further confirmed that, while provisions of this nature are in line with constitutional requirements for public bodies to share information of a public nature, they might be difficult to implement, given the delays in national government informing county governments of their total budget allocations and transferring the funds. Participants also felt that, once county governments were assured of their budgets, they should not delay informing wards of their budgets; nor should there be delays in issuing local service orders or local purchase orders to service providers once investments had been approved as this would guarantee payments even if funds are delayed.

4.3.2 Operational features of the planning process

5. WCCPCs are composed of elected community members, with public vetting against criteria of integrity, commitment, leadership, and knowledge rather than academic qualifications

Premise: Public vetting reduces the risk of political manipulation and exclusion of the vulnerable; it also builds consensus around those selected to serve and encourages public commitment to being accountable among those selected. Integrity, leadership and local knowledge are of greater importance than academic qualifications, as WCCPCs can access technical assistance from county-level actors and receive training on project cycle and financial management, climate change and committee governance. Including customary leaders builds legitimacy of local institutions and a bridge between customary and statutory institutions.

Learning: To assess the effectiveness of the selection and election process and the benefits and limitations of including customary institutions, women and youth.

There was broad support for the premise underpinning the selection of WCCPC members and respondents considered public vetting to be effective in ensuring selected members had integrity. In the words of one respondent from Isiolo County: “Political machinations are becoming a challenge in every process both at the national and county and community level; how to stay devoid of politics when constituting the CCCF committees is important. However, the process of establishing CCCF in the pilot counties has been successful because of an elaborate and transparent committee election approach that is community-led and open to the public for scrutiny.”

The broad consensus around the issue of making formal education mandatory for WCCPC committee members was that there is a need to balance literate and non-literate members to prevent excluding certain categories such as women and traditional leaders because of their education levels:

“A balance needs to be found between the need for literate people who can draft proposals, keep minutes and do basic bookkeeping on one hand and the need to eliminate access barriers by not requiring education as a prerequisite for membership in the ward committees.”

“For the case of Isiolo, where most members were illiterate but respected, understood the concept and were able to rally the community around development agenda, the challenge was internal capacity to document and write reports.”

6. WCCPCs are provided with an operational fund to cover the costs of managing the project cycle

Premise: Elected, representative ward-level committees are better placed than county-level actors to identify community-prioritised investments that build climate resilient development (see Operational feature 2). By enabling WCCPCs to function independently, they will deliver better quality consultation and accountability and so identify more effective investments that meet local priorities and provide better value for money. It also builds their capacities (skills, confidence) to participate more effectively in wider local governance and county planning processes, creating more effective local institutions to deliver devolution and maintain peace.

Learning: To assess the added value of financially empowering WCCPCs to engage in project cycle management.

Respondents confirmed the value local people placed in their WCCPCs: 70% of households surveyed knew about the WCCPCs and participated in the selection of their members; 59% were consulted on investment prioritisation; 98% had seen benefits from the consultation; 93% knew someone on their WCCPC; 83% believed their WCCPC performs better than previous local level committee structures; 95% had seen lower costs, better decisions and better communication. Respondents also believed the WCCPCs' work in engaging with procuring and monitoring service providers had resulted in quicker delivery times for investments (Ada Consortium 2018a).

None of the actors consulted contested the added value of economically empowering WCCPCs to promote public participation and track the delivery of service provision, though participants at the technical review workshop did raise concerns about the sustainability of the approach, given the legal status of WCCPCs. These are registered as community-based organisations and, under public finance policy and legislation provision, only government employees can access government bank accounts and funds. Proposals to address this issue include nominating ward administrators as signatories of WCCPC bank accounts responsible for releasing and accounting for funds and/or renaming the committees ward climate change planning teams (as Makueni has done), which would allow the easy flow of funds to cover the operational costs ward committees.

7. WCCPCs participate in tendering process with support from CCCPCs

Premise: This would enhance transparency, accountability and value for money, reduce the risk of political and economic abuse of power and build WCCPC capacity to ensure and account for the good use of their CCCF budget allocation.

Learning: To assess the effectiveness of WCCPC in ensuring oversight over the choice of service providers and delivery of investments with public funds.

Respondents agreed with the premise behind WCCPC participation in the tendering process, observing that it has helped reduce the cost of investments and given WCCPCs have better oversight of project delivery, as they are aware of what service providers are meant to deliver.

“In addition to the cost of procurement, project supervision and monitoring is a key driver of costs for county government investments. In this case, the local committees carry out that role with oversight from WCCPC. This greatly reduces the cost of the projects.” *County procurement official, Garissa County*

“We knew every aspect of this project. We knew how much was allocated. We knew what the contractor was expected to deliver. For the things we didn't know, we knew where to get the information.” *Representative of Guticha WCCPC*

While this is true in a project-led context, it may be harder to implement once fully integrated into county government processes, as the PFM Act does not allow involvement of non-state actors in procurement. A possible approach to overcoming this challenge — proposed by participants at the design review workshop — is for county government to lead the tendering process, co-opting the WCCPCs to participate in the process, with procurement done at the ward level. The CCCF legislations will need to be reviewed to ensure alignment with this proposal and compliance with PFM policy and law. There are also concerns of conflicts of interest if WCCPCs are involved in procurement and the choice of service providers as well as being responsible for overseeing the service providers when they implement the investments. One proposal for avoiding such conflicts of interest is for WCCPCs to appoint a site committee to oversee implementation.

8. Design resilience planning tools that align community and county government planning

Premise: Such tools would enable communities to articulate their knowledge of critical resources and resilient livelihood strategies in a way that county planners understand, appreciate and support. They would build dialogue, understanding and respect between government actors and citizens central to the success of the devolution agenda and identify practical and cost-effective ways in which county planning can strengthen local adaptive strategies and build longer-term resilience to climate change.

Learning: To assess the added value and effectiveness of the tools and the feasibility of their integration into county planning systems.

County governments traditionally engage communities to elicit their views and identify their priorities through community meetings, focus group discussions, individual interviews, social surveys and community information sharing sessions. This process is usually led by specific sector departments which use the information they gather to inform their annual plans and budgets. But such an approach does not enable communities to fully articulate their knowledge and contribute to the planning process. As one respondent put it, [at] the county level, the planning and budget making process is often rushed and only top-line priorities are picked and sieved based on budgets, a few views are picked here and there, and doesn't articulate a wide participation — communities have no access to the budget to inform their contributions."

County government staff and community representatives who participated in resource mapping endorsed the added value of this approach. The former appreciated the level of community knowledge the process generated and became more aware of the extent of this knowledge, while the latter appreciated the opportunity to visualise their knowledge through a map. This process enabled communities to articulate the logic of their livelihood and adaptation strategies and helped bridge the information gap between government and community. However, the approach cannot be easily integrated into county government planning: it is too time-consuming and complex and requires strong facilitation skills. The Ada Secretariat is reviewing the tool and process in collaboration with county planning departments and the Ministry of Devolution and ASALs to identify ways to simplify the approach to strengthen county planning processes.

9. Designing county CIS plans

Premise: County CIS plans would enable the institutionalisation of CIS in all development county-level planning and budgeting and help identify investments that better prepare counties and communities for responding to and recovering from climate-induced hazards.

Learning: To assess the effectiveness and feasibility of integrating CIS plans into county planning systems.

KMD has supported the five counties to develop their CIS plans but these are yet to be piloted/tested, so the learning for this operational feature is limited. During the CCCF technical review workshop, participants expressed their view that CIS is currently disconnected from the county planning process and that there is a need to look at how to mainstream CIS tools into this process. Participants also observed that CIS suffers from devolution tensions, as the counties view it as a national government mandate. However, as mentioned in Section 4.1.3, there is some anecdotal evidence suggesting that, when climate information has been integrated into the design of investments, investments are more resilient to climate risks.

10. CCCPCs are not authorised to veto – and must strengthen as necessary – WCCPCs’ investment priorities if they are in line with funding criteria

Premise: WCCPCs retain control of their adaptation priorities in the planning process, in line with provisions of the constitution and the County Governments Act. This reduces the risk of political interference and builds greater accountability of WCCPCs to local community.

Learning: To establish the added value and feasibility of integrating this design feature into county planning systems.

Although we do not have any documented evidence on how the WCCPCs feel about this provision, it appears to be working well in practice; CCCPC rejections of WCCPC-prioritised proposals are rare. For example, CCCPCs in Isiolo and Wajir only rejected one proposal each on technical grounds out of 43 and 36 proposed investments, respectively.²³

While participants of the CCCF technical review workshop agreed with the principle of this design feature, there were concerns about the wording of the operational feature: “The statement is too strong – [it] portrays the CCCPC as a structure that is hell-bent in not helping the community.” Participants suggested changing the wording to make it a requirement that WCCPC-proposed investments are technically guided by relevant county departments and the CDM. They also suggested that WCCPCs are made aware of the county annual development plans when asking the community to prioritise investments to ensure greater consistency between them.

11. Mainstreaming the TAMD framework into CIDPs

Premise: This will build the capacity of CIDP M&E systems to assess outputs, outcomes and impacts of climate adaptation and climate-resilient development.

Learning: To assess the effectiveness of TAMD and the feasibility of integrating it into county M&E systems.

The learning for this feature is limited as the pilot only tested the TAMD approach in Isiolo and, to a lesser extent, in Kitui. In both counties, the work largely consisted of developing theories of change with communities. No specific study has assessed the effectiveness of the approach, but learning from those engaged in the process identified the value of conducting theories of change for investments with community members and strong community capacity to grasp the principles of the approach. However, the TAMD approach, if it is to be adopted, should be a framework to enhance – and not duplicate – the existing County Integrated Monitoring and Evaluation System (CIMES) and linked to the National Integrated Monitoring and Evaluation System (NIMES).

²³ In Isiolo, the CCCPC rejected a proposal to construct a cattle dip along the Ewaso Nyiro river as not technically viable because the soil around the river is too loose to support this type of infrastructure and chemicals from the cattle dip were likely to drain back into the Ewaso River, leading to water pollution. In Wajir, the WCCPC had proposed to rehabilitate a water pan, but the CCCPC rejected the proposal as that water pan had only held water for two seasons in the six years since it had been built. The WCCPC was given a chance to present another priority of their choice.

5. Lessons for taking the CCCF mechanism to scale

The CCCF mechanism, initially piloted as the CAF in Isiolo and subsequently scaled out to Garissa, Kitui, Makueni and Wajir Counties, is leading to significant benefits for individuals, households and communities. The benefits extend beyond the local level and the investments themselves. The mechanism has led to institutional reforms at the county level, ensuring that the voices of the vulnerable and marginal are heard and included in decision making (UNFCCC 2015; Orindi et al. 2017). Evidence is emerging that this enhanced community participation is going beyond the CCCF mechanism itself and influencing the broader county development planning processes, including the CIDPs. The CCCF mechanism is supporting devolution by developing a bottom-up approach that is successfully delivering value-for-money investments, bringing significant benefits to vulnerable households, empowering communities by giving them greater voice and including them in county-level climate adaptation and development decision making (Ada Consortium 2018a).

The CCCF mechanism has gone beyond a standard project approach that creates parallel processes and structures; it is becoming integrated into the political system. In this way, it is supporting local government capacity development, which is critical for effective climate adaptation (Sharma et al. 2014). It is also demonstrating potential ways to deliver transformational changes in governance and policy regimes for climate-resilient development and effective climate adaptation, including how to channel global and national climate funds to the local level and the most vulnerable (Brooks 2017; Orindi et al. 2017). Such transformational change — which challenges the business-as-usual approach of development and focuses on empowering individuals and communities that have been marginalised or disconnected from political and governance processes and structures until now — is essential to achieving the broader national and international development and climate agendas. These include Kenya's Vision 2030, the 2030 Sustainable Development Agenda pledge to 'leave no one behind' and the Paris Agreement commitment to take the urgent needs of those that are particularly vulnerable to climate change into account. It remains to be seen whether the mechanism can sustain these benefits and realise its transformative potential as it becomes fully entrenched into government systems. We must generate more evidence from longitudinal studies to assess the mechanism's long-term impacts. It is also critical to learn from existing challenges and to incorporate those into the CCCF mechanism, especially as the approach is scaled out beyond the ASALs to the whole of Kenya.

1. While inclusion and community participation are key principles of the CCCF and anecdotal evidence suggests that positive strides have been made in these areas, maintaining a strong focus on these issues is critical for continued success. Ada Consortium's study shows that more needs to be done to improve vertical coordination and ensure that community participation in county decision making is enhanced, formalised and supported across all counties. Improved communication across the different structures and committees is also key to ensure that communities and other county committee members fully understand the roles of WCCPC and CCCPC members (Ada Consortium 2018a). Including women and youth in the CCCF structures at the community (user committee), ward and county levels and ensuring their full and sustained involvement in decision making across the lifecycle of investments remains an important challenge, especially as the mechanism transitions from its pilot and project phase to becoming fully embedded into government processes. This challenge is likely to be magnified as the CCCF mechanism is scaled out across Kenya, with the aim of all 47 counties adopting it over time.

2. Ensuring the long-term sustainability of investments remains another critical challenge, especially as there is evidence of a high rate of failure of water investments in ASALs (Mtisi and Nicol 2013; USAID 2014; Bedelian 2019; Cullis et al. 2019). CCCF investments are community-driven and integrated into the county planning systems, which addresses some of the weakness of the planning system. But these studies provide a note of caution to the early successes that we are seeing with the CCCF investments. There is already evidence of further improvements required to maintain and enhance their benefits – for example, some people still walk long distances (3km) for domestic water each day, so further investment in water infrastructure (such as piping water into towns, better waste and sanitation, more boreholes and more water kiosks) would bring greater benefits to more people (Ada Consortium 2018a; MacGregor 2018).²⁴ Most CCCF investments have also tended to focus on addressing existing development deficits that constrain households' and communities' ability to adapt to climate risks (Sharma et al. 2014). But to ensure effective household and community adaptation, climate information must be fully integrated into the design and implementation of investments prioritised by communities to make them more resilient to climate change. Such an approach will also ensure investments do not inadvertently lead to maladaptation and a path dependency towards greater climate vulnerability.
3. A third and related challenge involves strengthening CIS. Anecdotal evidence shows that the CCCF mechanism has helped integrate climate change considerations into county development planning processes and strengthen the CIS in the five counties. But more improvements are required to ensure climate information reaches and benefits the most vulnerable. Ultra-poor households are failing to benefit from improved CIS; there needs to be a stronger focus on equity to reach those households that fall outside the dominant livelihood types and a stronger understanding of the constraints they face in accessing and using CIS (Apgar et al. 2017). The choice of CIS communication channels may not be appropriate to all – especially the poor – because they rely on intermediaries who, in some cases, delay this perishable climate information. Identifying the most appropriate channel for short-term CIS dissemination is vital.
4. Planning for climate adaptation must occur at appropriate scales and will often need to extend beyond administrative boundaries (Sharma et al. 2014); it should not be confined to the local community level but also occur at the county and regional levels. The CCCF mechanism already contains provisions for adaptation planning to occur at the county level, with 20% of funding earmarked for such investments (Ada Consortium 2018b). It also has provisions for inter-ward planning meetings, but although these took place, they focused more on ensuring there was no duplication of proposed investments by wards that share resources rather than on developing joint investments on a larger scale. Essential further research on how to integrate an ecosystem or landscape approach into the CCCF mechanism is already underway. This is particularly relevant for regions with shared ecosystems and livelihoods based on mobility.
5. A final challenge revolves around improving the quality assurance and M&E processes within the CCCF mechanism, including approaches for measuring resilience. Quality assurance mechanisms are essential for maintaining the accountability of institutions and ensuring they continue to adhere to the principles of the CCCF mechanism, as there have already been instances of counties not doing so (Ada Consortium 2018a). M&E systems and tools will also help ensure continued learning on CCCF effectiveness in delivering climate-resilient development. Developing a method to measure the impact of investments on household and community resilience, which can be integrated into government processes and easily implemented by counties, will be critical to evaluating the mechanism's success in building local resilience to climate change.

24 The Ada Secretariat has commissioned a study to address the issue of the failure of water investments in ASALS by assessing how well the CCCF investments are functioning, better understanding the governance context within which they operate and identifying ways to ensure their long-term sustainability, including making them more resilient to climate change.

The CCCF mechanism has only been tested and implemented in five counties, all of which form part of Kenya's ASALs. It is entering a new phase as it is scaled out beyond the ASALs and the rural locations where it was tested. This will require contextualising the mechanism to new contexts – including Kenya's lake region and its coastal and urban areas, which range from small and intermediate centres to the capital city, Nairobi – and seeing how to engage with the private sector, which is likely to support climate resilience for communities living in these areas. A key success of the CCCF mechanism has been the way it has enabled local communities to have greater control over decision making, which will in time deliver climate-resilient development. The scaling-out phase will build on this and further test how communities in Kenya's different areas and contexts can benefit from this transformational approach and increase their resilience to climate change.

On a final note, if devolved climate finance mechanisms are to be tested and implemented in new countries, it is critical to highlight that a major factor of success was the very flexible funding provided by DFID and Sida, which enabled the Ada Consortium to implement the work through a staged design and implementation approach. Institutional strengthening and climate change are both complex processes, which embody 'wicked' problems that are incomplete, and contradictory and have changing requirements that are often difficult to recognise. Due to complex interdependencies, efforts to solve one aspect of a wicked problem may reveal or create others. Hence an extended, flexible design process is vital, during which the shape of the programme can evolve through 'learning by doing'.

It is important not to lock in an overly rigid structure in advance of a long implementation phase, when reality will inevitably diverge from the future modelled in this business case. Iterative, evidence-based learning and critical, participatory reflection are key means for tackling 'wicked' problems (Levin et al. 2012).



Communities member fetching water from a water kiosk in Wajir County Photo by Jane Kiiru

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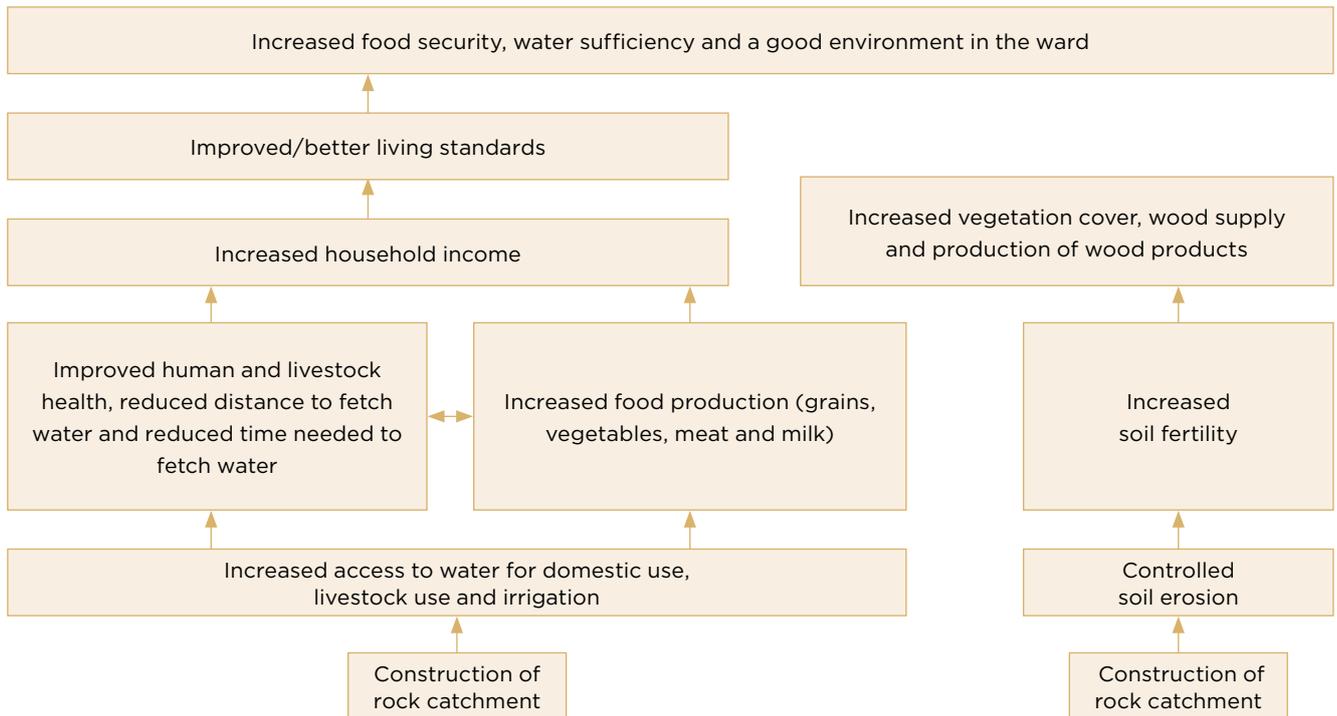
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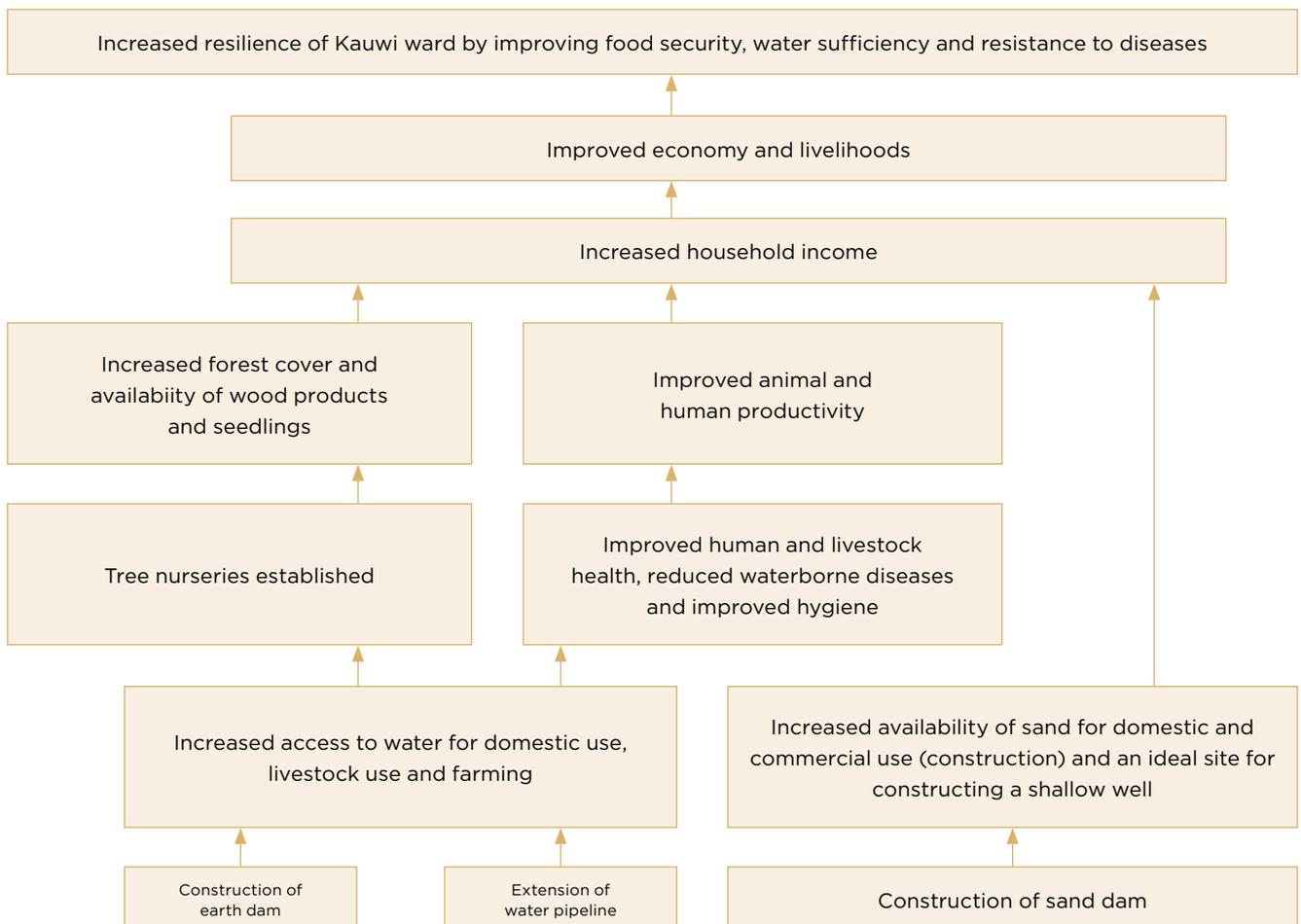
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Annex 3. Sample theories of change

Masue rock catchment (Makueni County)



Mikuyuni earth dam (Kitui County)



Annex 4: Gender composition of WCCPC and User Committees

Garissa

Garissa County			
Committees	Ward	Male	Female
WCCPCs	Sankuri Ward	8	3
	Goreale Ward	8	3
	Nanighi Ward	8	3
User Committees	Sankuri Ward, Shimbire, Nuno locations	3	2
	Gorelae Ward, Shanta Abaq location	3	2
	Nanighi Ward, Kamuthe, Abaq Deera locations	1	4

Isiolo

Isiolo County			
Committees	Ward	Male	Female
WCCPCs	Sericho Ward	7	3
	Garbatulla Ward	6	4
	Kinna Ward	8	3
	Charri Ward	6	4
	Cherab Ward	7	1
	Oldonyiro Ward	7	3
User Committees	Garba Tulla community radio	7	3
	Belgesh pan 1	7	7
	Belgesh pan 2	7	7
	Kinna vet lab	10	2
	Bibi water pan	5	3
	Three Yamicha strategic boreholes. All strategic boreholes are managed by <i>Deedha</i> committees which lack female representation		

Makueni

Makueni			
Committees	Ward	Male	Female
WCCPCs	Mtito Andei	7	4
	Kiima Kiu Kalanzoni	8	3
	Kilungu	8	3
	Kithungo Kitundu	6	5
	Nguu Masumba	7	4
	Mbitini Ward	9	2
User Committees	Ngai ndethya mega sand dam	5	4
	Kwa mutuku earth dam	6	3
	Kwa kilii sand dam	7	2
	Masue rock catchment	5	4
	Ngutioni sand dam	6	3
	Kya aka sand dam	5	4
	Kaseve water distribution	5	4
	Kwa lai sand dam	4	5
	Kwa ndambuki sand dam	5	4
	Masue 200m ³ storage tank	5	4
	Kwa ndaina sand dam	6	3
	Kwa luli sand dam	5	4
	Kwa atumia earth dam	6	3
	Kwa kyole sand dam	5	4
	Ngaamba water distribution	5	4

Kitui

Kitui					
Committees	Ward	Male		Female	
		Younger < 35 yrs	Older > 35 yrs	Younger < 35 yrs	Older > 35 yrs
WCCPCs	Kiomo/Kyethani	1	7	0	3
	Yatta/Kwa Vonza	1	4	1	5
	Mutito/Kaliku	3	5	1	2
	Voo/Kyamatu	2	5	1	3
	Ikutha	0	8	0	3
	Mutha	4	3	2	2
	Tharaka	4	4	2	1
	Ngomeni	2	6	3	0
	Migwani	2	7	1	1
	Kauwi	2	5	0	4
User Committees	Itukisya	4		5	
	Ngomano	5		2	
	Kalikuvu	5		4	
	Kaumbu	4		6	
	Kyandeve	5		2	
	Kaayo	5		4	
	Kwa Mboo	8		3	
	Kamuyuni	3		4	
	Iiani kwa Ndungu	8		3	
	Mutethya Nzaini	6		3	
	Makithuri	5		2	
	Mikuyuni	6		5	

Wajir

Wajir			
Committees	Ward	Male	Female
WCCPCs	Arbajahan	5	3
	Adimasajida	7	1
	Banane	6	2
	Eldas	6	2
	Lakole	6	2
	Gurar	6	2
	Korondille	7	1
	Khorof harar	7	1
	Lagboqol	6	2
	Sarman	6	2
	Elben	6	2
	Wargadud	6	2

Wajir			
Committees	Ward	Male	Female
User Committees	Adan Awale	4	1
	LMD	7	3
	Buruka	3	1
	Dadantalahi	4	3
	Lakole	3	1
	Yatta	6	0
	Jehjeh	4	2
	Lagboqol	4	1
	Basanicha	3	1
	Elben	5	3
	Bamba	6	0
	Wargadud	2	6
	Lanqood	4	3
	Guticha	4	1
	Kulmis	5	3
	Kilkile	5	2
	Baisr	4	2
	Harade	3	1
	Koton	10	2
	Machesa	5	2
	Dambas	6	2
	Abdigaane	6	3
Garakilo	5	1	
Kutulo	7	3	



The County Climate Change Fund (CCCF) mechanism is supporting county governments to mainstream climate change in planning and budgeting, prepare them to access climate finance from different sources and strengthen public participation in the management and use of those funds. The CCCF mechanism has been piloted successfully in five Kenyan counties — Isiolo, Garissa, Kitui, Makueni and Wajir — and is now being scaled out nationwide. The scale-out is funded by the Republic of Kenya, the Embassy of Sweden, Nairobi, UK aid and the World Bank.

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The opinions expressed in this publication are the responsibility of the author(s).

Cover image: A woman fetching water from a sand dam in Kitui County Photo by Jane Kiiru

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