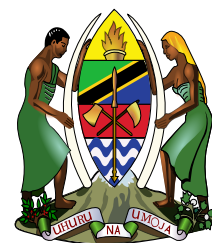


Decentralising Climate Finance Project (DCFP)



Lessons from Piloting the Decentralised Climate Finance Programme, Tanzania

Author: Sam Greene



LoCAL



Executive summary

Tanzania's climate change adaptation finance gap is significant. Although it needs around US\$500 million a year to deliver its adaptation strategy, development partners have only approved a total of US\$150 million for disbursement in total since the early 2000s. As climate impacts become increasingly severe, the challenge is to deliver adaptation investments, at scale, through a planning system that was not designed to respond to an environment in which climate risks bring increased unpredictability and variability to the environment.

To address these challenges, the Tanzanian government, led by the President's Office for Regional Administration and Local Government (PO-RALG) piloted the development of the Decentralised Climate Finance (DCF) mechanism. This mechanism works through a consortium of government and non-government institutions with the support of the UK government's Department for International Development's UKAid. The International Institute for Environment and Development and the United Nations Capital Development Fund (UNCDF) provided technical support.

Between 2016 and 2018, PO-RALG tested the pilot mechanism in Monduli, Longido and Ngorongoro districts, where 35 resilience-building investments are now functioning, overseen by local government authorities and maintained by village level committees. The projects are context-specific, focusing on priorities defined by communities, investing in the enabling environments for resilient livelihoods to function, improving livestock health and water access for both people and livestock. The pilot built local governments' institutional capacity to respond to climate impacts by:

- Establishing a climate adaptation fund held at the discretion of the local government authority, with spending prioritised by elected community representatives
- Establishing elected community representatives at division level that prioritise and lead implementation of adaptation projects, bringing customary planning systems and local knowledge together into the formal planning system
- Introducing resilience planning tools to help communities articulate the nature of local livelihoods and resource use to governments, and
- Building monitoring and evaluation capabilities to enable ongoing, iterative learning.

The elected community committees, known as divisional adaptation planning committees (DvAPCs), consulted over 10,000 people across the three districts and offered ongoing scrutiny of the service providers. This generated meaningful community ownership of investments and ensured project designs reflected specific local needs. At around \$19,000, the consultation process alone costs less than existing government planning processes such as Opportunities and Obstacles for Development.

Establishing the pilot has generated several useful lessons for those wishing to establish similar mechanisms for channelling climate finance in Tanzania or other countries, and for local-level climate adaptation investments in general.

- Building government institutions' capacity to respond effectively to climate risk requires patient, consistent investment. The DCF mechanism is built on investment in staff capabilities to understand key climate change concepts and changing attitudes around local livelihoods, and to recognise imminent risks. Embedding new concepts and capabilities takes time.
- Alternative planning spatial scales of planning — such as the division — can work alongside and in support of the government's existing national planning system. Local governments have

recognised that planning at larger spatial scales than the village is necessary for managing climate risks while incorporating the cross-border mobility strategies pastoralists use to remain productive and resilient. The new institutions enabled a principle of subsidiarity to function in the decision making process that is critical for resilience planning. This approach enabled local governments and community representatives to work together to make the necessary investment placement decisions, at the right scale, to benefit several villages at once by factoring in customary natural resource management strategies, bringing added value for money.

- Empowering community committees with responsibility for investments and the funds to carry them out improves transparency and encourages social accountability of government activities. Where Division Adaptation Planning Committees built close relationships with government technical staff, they continuously monitored service providers' work, reviewed bills of quantities and reported poor performance to the appropriate authorities, leading to concerted action where necessary. Their advice to technical staff and service providers also enhanced the effectiveness of investments — for example, they asked for longer drinking troughs, enabling more livestock to access water at a time, which allowed for more grazing time and reduced the risks of infectious livestock diseases.
- Local champions and customary, traditional or informal leaders play a key bridging role between communities and governments through the newly elected community institutions. Traditional leaders can also draw on their knowledge of productive customary natural resource management strategies, mediate between communities over priorities and enlist community in-kind support for building new investments.
- If climate finance is to be disbursed in larger quantities to local government planners for physical investments, technical local government authority teams will play a key role in overseeing the quality of construction or introducing new ideas. Specific training for their roles in designing local investments and systems for quality assurance would reduce errors and risk of poor-quality designs. Training may be helpful to build recognition of local innovations such as solar pumps or low concrete construction.
- Women and men have different priorities when responding to climate risks and government planners must recognise this if they are to develop an appropriate climate response. Women have benefitted significantly from the inclusion of domestic water points alongside new livestock drinking troughs, which typically benefit male herders. This is a relative innovation in the context of the local cultural norms that dictate the order of access to water sources. Government authorities and DvAPCs must make sure that women's voices are fully incorporated into the planning process and influence final decision making if they are to build resilience for all.

The mechanism now needs to secure long-term funding to build on the learning from and successes of the pilot. PO-RALG is seeking accreditation as a national implementing entity for the Green Climate Fund so it can channel finance using existing inter-governmental financial transfers. But this process will take some time. There is high-level willingness in national government to expand the pilot mechanism to another 15 districts, including coastal and agricultural regions for further testing. Bringing the successful elements of the DCF pilot together with the UNCDF "Local Climate Adaptive Living Programme", PO-RALG plans to move forward with the "Local Climate Finance Initiative" (LCFI), scaling up a climate finance mechanism with transformative potential.

Through the LCFI, PO-RALG will investing in fiduciary capabilities and effective and independent resilience planning tool use, targeting local government authorities to facilitate this and further support mainstreaming of the approach. But these capacity building investments must be coupled with further financing for investments to enable communities to maintain momentum in planning their climate response in partnership with local governments.

Once established, the mechanism will enable local government authorities in Tanzania to access climate finance and fund investments to build climate-resilient development at local government authority and community levels. The DCF mechanism builds on Tanzania's decentralisation by devolution process, which provides 'ready-made' institutional and financial architecture for delivering climate finance to the lowest level, ensuring community priorities guide the way finance is spent.

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Acronyms

BCURE	Building Capacity to Use Research Evidence programme
BRACED	Building Resilience and Adaptation to Climate Extremes and Disasters programme
CIS	climate information services
DAAB	district adaptation advisory boards
DAPC	district adaptation planning committee
DCF	devolved climate finance
DvAPC	divisional adaptation planning committee
IIED	International Institute for Environment and Development
IRDP	Institute of Rural Development and Planning
LGDG	Local Government Development Grant
LGTI	Local Government Training Institute
LoCAL	Local Climate Adaptive Living Facility
M&E	monitoring and evaluation
MEL	monitoring, evaluation and learning
NDC	nationally determined contribution
NGO	non-governmental organisation
NIE	national implementing entity
O&OD	Opportunities and Obstacles for Development
PBCRG	Performance Based Climate Resilient Grant
PO-RALG	President's Office – Regional and Local Government
TAMD	Tracking Adaptation and Measuring Development
TMA	Tanzania Meteorological Agency
UNCDF	United Nations Capital Development Fund
UNFCCC	United Nations Framework Convention on Climate Change

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1 Introduction

Adapting to the impacts of climate change in sub-Saharan Africa will cost at least US\$50 billion per year by 2050,¹ and Tanzania alone will need around US\$500 million a year for adaptation to preserve its desired route towards semi-industrialisation by 2030.² But finance for adaptation globally falls short of these figures. Preliminary estimates suggest only about 10% of the funds that are flowing for adaptation reaches the local level, where communities benefit most.³

In Tanzania, average temperatures will probably rise, which will contribute to changes in the profile of crop, human and animal diseases as well as short-term shocks such as intense rainfall events and increasingly frequent drought.⁴ These will negatively impact the economy and the mainly small-scale rural agricultural production upon which it rests. Each annual extreme weather events cost the government more than one per cent of GDP. So adaptation at local level — where risks are experienced most keenly — is key to enabling people to reduce their vulnerability to climate hazards and respond productively to changing environmental conditions.

But the planning system is not designed to respond to the current risks of increasing climate variability or to plan for future climate change scenarios. It also has limited capacity to incorporate well-established traditional knowledge and customary community planning systems that have evolved to manage the ecological variability that is common in regions where people are most vulnerable (see Box 1 and Table 1).⁵ The main planning tools — Opportunities and Obstacles for Development (O&OD) — and its successor, Improved O&OD, seek to identify participatory, community-driven development solutions. But subnational government authorities typically do not have enough technical or financial capacity to implement these plans.⁶ Inflexible institutional systems, central planning and budgets further reduce local governments' ability to respond to uncertainty and change.

Such weaknesses in planning undermine local development, which is further compounded by a history of development failure, particularly in Tanzania's drylands. Expansion of commercial agriculture into traditional grazing areas that are fundamental for sustainable, productive and locally adapted livelihoods is undermining those livelihoods,⁷ and the historic underdevelopment and poor maintenance of local infrastructure has reduced access to key services. These impacts are felt keenly in areas where climate change is exacerbating the challenges and increasing vulnerability.

Tanzania is investing in its response to climate change. Its nationally determined contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) promised to “embark on a climate-resilient development pathway”, improving institutional capacity as well as early warning systems.⁸ It has developed the Tanzania Climate Change Strategy and ratified the Paris

¹ Schaeffer, M, Baarsch, F, Adams, S, de Bruin, K, De Marez, L, Freitas, S, Hof, A and Hare, B (2018) Africa adaptation gap technical report: climate-change impacts, adaptation challenges and costs for Africa. UNEP.

² Government of Tanzania (2012) National climate change strategy.

³ Soanes, M (2017) Delivering real change: getting international climate finance to the local level. IIED.

⁴ Future Climate for Africa (2017) Summary, future climate projects for Tanzania.

⁵ Government of Tanzania (2015) Intended nationally determined contributions. Vice President's Office.

⁶ Msangi, A, Rutabingwa, J, Kaiza, V and Allegretti, A (2014) Community and government: planning together for climate-resilient growth. IIED. See <http://pubs.iied.org/10075IIED/>

⁷ De Jode, H and Hesse, C (2011) Strengthening voices: how pastoralist communities and local government are shaping strategies for adaptive environmental management and poverty reduction in Tanzania's Drylands. IIED.

⁸ Government of Tanzania (2015) National climate change strategy. Vice President's Office.

Agreement. Its climate change strategy has led to sectoral climate responses, including the Tanzania Agriculture Climate Resilience Plan (2014–2019) and is integrated into regular five-year planning cycles. But Tanzania has no national adaptation plan and is yet to develop infrastructure for an integrated funding stream that can finance adaptation at sufficient scale.

To address the adaptation finance deficit and identify approaches to mainstreaming climate change into planning, the UK government's Department for International Development's (DFID) UKAid provided a US\$4.8million (£3.8 million) grant to the International Institute for Environment and Development (IIED) under its 'Assisting public institutions and markets to become resilient to effects of climate change in Tanzania' programme, AIM 4 Resilience. The grant was to strengthen the government of Tanzania's capacity to establish a decentralised climate finance mechanism in three Tanzanian districts and to trial establishing a climate finance mechanism for cooperatives in Unguja, Zanzibar.⁹

The mainland mechanism, overseen by the President's Office – Regional and Local Government (PO-RALG), provides a system for accessing climate finance and channelling it, through existing government systems, towards a subnational planning process that enables locally planned and delivered resilience building investments.

A pilot form of the mainland mechanism was tested by PO-RALG in Monduli, Longido and Ngorongoro districts, all within Northern Tanzania's Arusha Region (see Figure 1). This built on previous institutional strengthening work that increased local government capacity to recognise and respond to climate risks by recognising existing community adaptation strategies and improving communication of climate information services (CIS).¹⁰ The pilot sought to build an evidence base to support a decision to scale out the approach to another 12 districts.

⁹ The private sector version of the DCF mechanism enabled cooperatives to apply for loans from the People's Bank of Zanzibar to invest in climate-resilient businesses.

¹⁰ For further description of this work, see Greene, S (2015) Resilience building in Tanzania, learning from experiences of institutional strengthening. IIED, London.

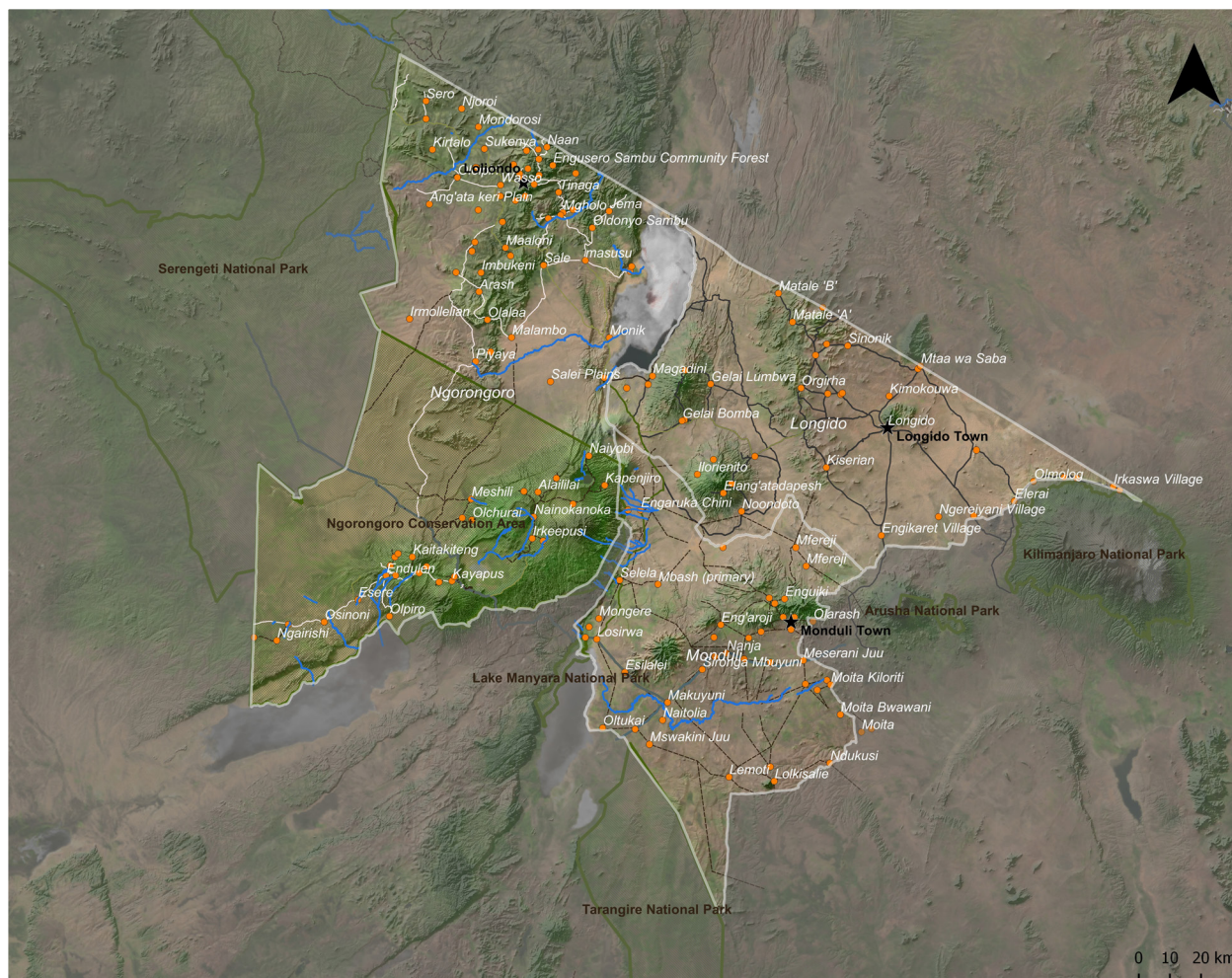


Figure 1 A map of Longido, Ngorongoro and Monduli

The project has also built PO-RALG's capacity to seek accreditation as a national implementing entity (NIE) of the Green Climate Fund. This will enable it to access climate finance and establish fiduciary, project management and operating standards that will open access to other funding sources. In the two years of the project, PO-RALG has:

- Received a letter of support from the Vice President's Office, Tanzania's national designated authority for climate change
- Completed an institutional assessment of readiness to seek funding
- Submitted an initial application, and
- Developed a capacity building roadmap for readiness funding to become a NIE.

To coordinate activities and share ongoing learning, PO-RALG formed the Devolved Climate Finance (DCF) Consortium. Government partners include the Vice President's Office, the Ministry of Finance and Planning, Arusha Regional Secretariat and the district governments of Monduli, Longido and Ngorongoro. Other partners include the United Nations Capital Development Fund (UNCDF), Hakikazi Catalyst and Tanzania Natural Resource Forum, two national non-governmental organisations (NGOs) based in Arusha. Two government training institutions — the

Local Government Training Institute (LGTI) and the Institute of Rural Development and Planning (IRDP) — joined to embed knowledge of the approach within their teaching and training.¹¹

This paper summarises learning from the two-year pilot on the mainland (it does not focus on the Zanzibar pilot). First, we present the climate limitations of the existing planning system and the DCF mechanism's core design features for strengthening local government planning to address climate change. Using qualitative research, we then examine how well the premises behind the approach as observed by communities and local government authority officials are supported by evidence and identify emerging issues and their relevance to the development of climate financing mechanisms. In the final section, we summarise learning from the pilot and make recommendations for improvements to the mechanism.

¹¹ The UNCDF became a partner due to the potential for linkages with their LoCAL programme, which introduces performance-based grants for investment in climate resilience at local government level.

2 The climate limitations of planning

The need for a DCF mechanism lies in the inability of Tanzania's subnational planning system to respond to the challenges of climate change or drive climate-resilient development. The government promoted its existing planning approach — O&OD — as part of its decentralisation efforts from 2002. Although it provides a comprehensive set of participatory rural appraisal tools to facilitate participatory development choices, this approach also faces several challenges.

Box 1: Key challenges of O&OD

- The planning cycle is not aligned with the seasons. O&OD takes place at the onset of the dry season (May/June), but formal prioritisation and funding decisions are in December at the onset of the short rains. Activities prioritised earlier in the year may be no longer relevant, as planning does not take climatic conditions into account in advance.
- Planning deadlines are too short and budgets too limited to facilitate adequate participation. This leads to a poorly administered process. Unelected village executive officers write large parts of community plans without meaningful community input.
- Tools are weighted towards agricultural livelihood strategies, with little climate change or resilience focus. Local adaptive livelihood strategies and planning are not articulated.
- The process is expensive and rushed, with less priority given to focus group discussions and marginalised groups' priorities. In Ngorongoro, O&OD processes have been cancelled through a shortage of funds in some years.
- The village is the standard spatial scale for planning and each village is supposed to plan its own investments. This does not reflect the spatial scale at which communities use resources in practice, nor the scale at which it is most effective to respond to climate impacts on a landscape-wide scale. Many people in Monduli, Longido and Ngorongoro strategically travel across multiple formal boundaries to access water sources, pasture or public services. Planning does not reflect the routes along which they travel, nor the nature of natural resource use, which is often guided by customary institutions.
- Communities are aware that the climate is changing. But they are unaware of the causes or long-term implications. Their inability to properly articulate livelihood strategies means they tend to produce a shopping list of projects that are neither necessary, urgent nor appropriate.

Source: Greene, S., (2015)

The O&OD process is underfunded and poorly executed and staff lack the required training to facilitate O&OD participatory tools effectively.¹² Village executives often submit 'shopping lists' of requests, few of which are funded, undermining trust in the government's ability to provide services.¹³ In Monduli, Longido and Ngorongoro, O&OD has struggled to enable genuine participation or incorporate customary planning systems developed over many years to sustainably use natural resources in a dryland context that is characterised by variability and unpredictability.⁶ As a result, formal government planning and customary community planning remain unconnected.

¹² Fjeldstad, O (2010) Planning in local government authorities in Tanzania: bottom up meets top down. Research on Poverty Alleviation.

¹³ JICA (2008) The study on improvements of Opportunities and Obstacles to Development (O&OD) planning process. PO-RALG. See http://open_jicareport.jica.go.jp/pdf/11879285_01.pdf

This increases the vulnerability of communities, who still depend on public investment to enable sustainable resource use.

The government has begun training local government on Improved O&OD, which is designed to enable local governments to identify and encourage community self-help initiatives with moral, technical and financial support. But the approach design does not enable government staff to recognise and plan for climate hazards and it is not clear how effectively it will improve planning.

The issue of sustainable funding for O&OD initiatives remains unresolved, as the main inter-governmental fiscal transfer — the Local Government Development Grant (LGDG), designed to facilitate O&OD-led local investment — has not functioned for several years. When it did function, it was rigid and centrally guided (see Box 1). It is neither flexible nor adaptive, as required for climate-responsible budgeting. Coordination across sectors is also a challenge, while evaluation — to gauge and learn from outcomes — is underfunded.¹⁴

The pilot used IIED's Tracking Adaptation and Measuring Development (TAMD) framework to collect evidence on local governments' ability to manage climate risk. TAMD is a twin-track framework that evaluates the extent and quality of climate risk management processes and actions on the one hand (Track 1) and associated development and adaptation outcomes (and their longer-term impacts) on the ground on the other (Track 2).¹⁵

Table 1 presents the results of district officials' self-assessment of institutional capacity for implementing climate risk management measures in Monduli, Longido and Ngorongoro. Each official was asked rate district capacity against a set of climate risk management-related indicators, with choices of 0–25%, 26–50%, 51–75% or 76–100%. We averaged their responses to provide the scores, with higher scores indicating higher capacity.

The self-assessments show significant gaps in districts' ability to plan effectively for climate-resilient development and risk management. For example, local governments' ability to respond to context-specific climate priorities is hampered by recent rigidity of inter-governmental fiscal transfers and in some cases their funding decisions have been driven by central ministries striving towards national targets. There has typically been emphasis on budget rigidity, with little room for cross-sectoral planning or flexibility in response to changing conditions. Local stakeholders' awareness of appropriate and effective institutional responses to climate is typically low; it took significant upstream investment with government, civil society organisations and community representatives to make the work we describe in this paper possible.

The key limitations to effective, long-term climate risk management centre around the planning and budgeting system. Local governments struggle to identify and fund the right investments because they lack independence, finance and the capacity to implement cost-effective, appropriate tools to recognise local climate priorities. A robust system for identifying how community resilience is changing over time and facilitate learning is also lacking.

¹⁴ Greene, S (2015) Resilience building in Tanzania, learning from experiences of institutional strengthening. IIED. See <http://pubs.iied.org/10129IIED/>

¹⁵ For more information on the TAMD approach, see www.iied.org/tracking-adaptation-measuring-development-tamd

Table 1 Self-assessed institutional capacity district for implementing climate risk management measures, by district

Climate risk management indicator	Baseline (November 2016) (%)		
	Monduli	Longido	Ngorongoro
Mainstreaming/integrating climate change into district planning	30	30	30
Institutional coordination	25	25	25
Local government authorities raising funds for climate change adaptation and/or climate risk management	25	25	25
Budgeting and finance	30	25	30
Institutional knowledge/capacity	30	25	25
Use of climate information	35	32.1	32.1
Planning under uncertainty	25	25	25
Participation	75	55	45
Awareness among stakeholders	41.7	29.2	29.2
Learning from previous year incorporated into planning	50	41.7	33.3
Extent to which project investments incorporate sustainability concerns	25	37.5	25

Source: TAMD scorecard responses¹⁶

¹⁶ LTS Africa (2017) Decentralised Climate Finance project in Tanzania: baseline survey report. Internal project document.

2.1 The DCF mechanism pilot

The DCF mechanism piloted in Monduli, Ngorongoro and Longido and developed in consultation with districts, local NGOs, PO-RALG and community members sought to address these issues by enabling more effective climate-resilient planning and budgeting. It introduced four components to enhance existing elements of government planning, budgeting and monitoring and evaluation (M&E) systems:

- A climate adaptation fund for each district, to fund public good climate adaptation investments
- Climate change planning structures at district and divisional level that make decisions about how the fund is used
- Participatory planning tools, including CIS for pertinent investments, and
- Participatory M&E.

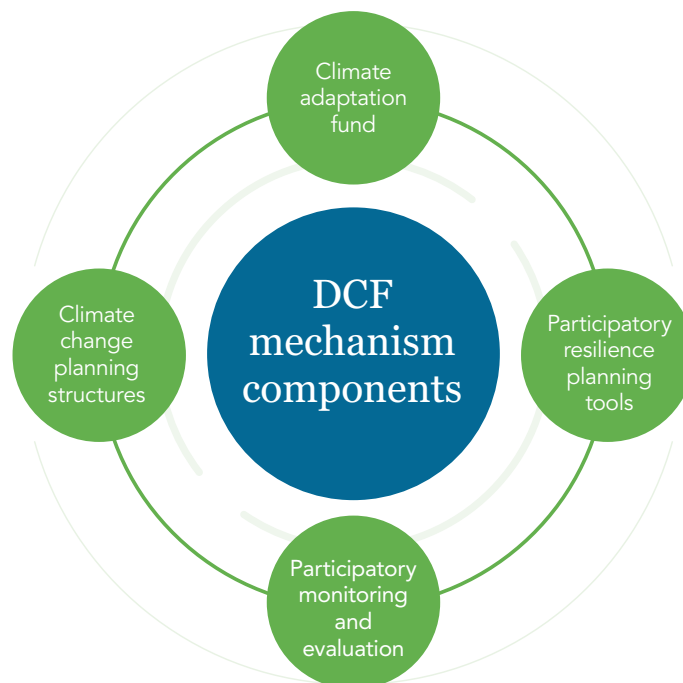


Figure 2 Components of the DCF mechanism

We introduced the four components gradually over several years (see Figure 3), starting with developing and introducing planning tools in 2014. We then moved onto supporting the government to develop the DCF mechanism and understanding how it would function in a Tanzanian context before establishing the fund institutions and starting to channel climate finance in 2016.

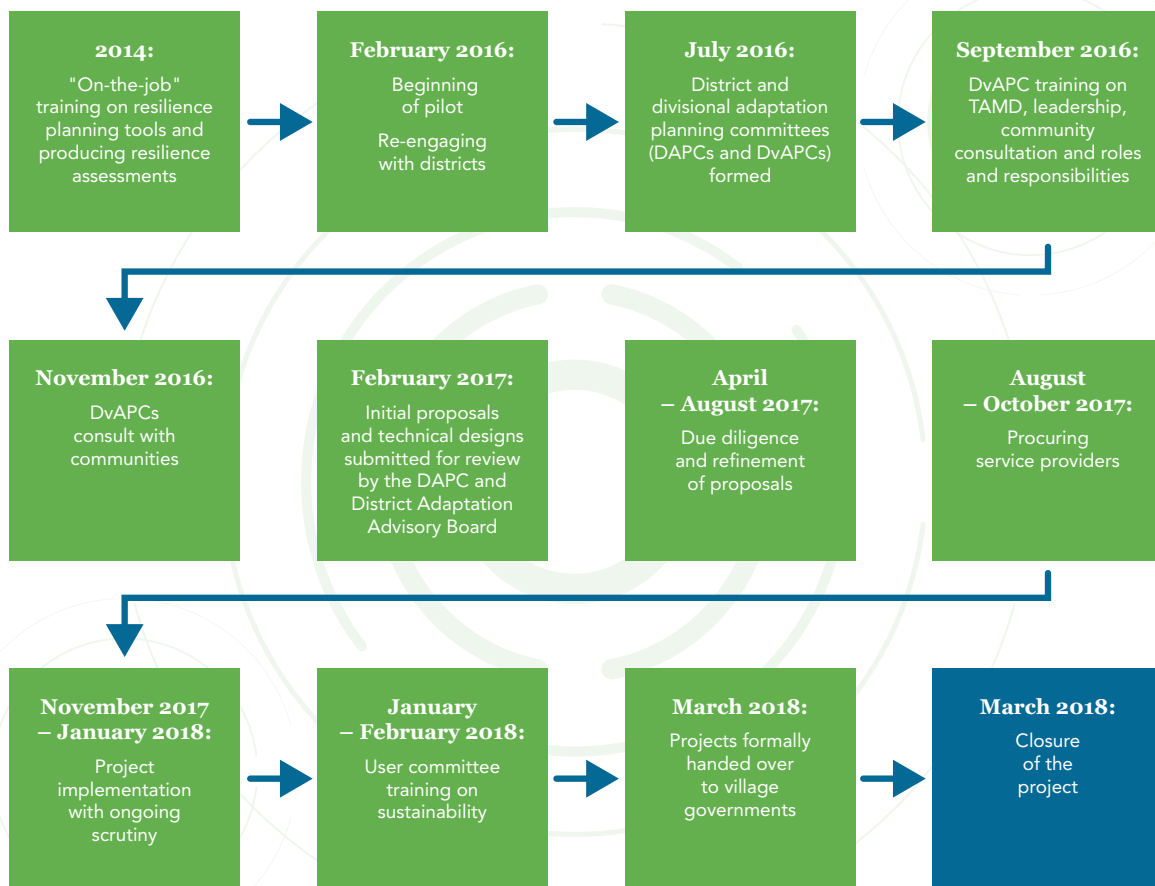


Figure 3 Timeline of project development

Component 1: Climate adaptation funds

These public funds, under the discretionary authority of district governments, have the necessary fiduciary standards to ensure accountability and transparency. Initially allocated directly to local governments to manage under PO-RALG supervision, the funds evolved to incorporate innovations and partnership with the Local Climate Adaptive Living Facility (LoCAL), a UNCDF programme.

LoCAL introduces a performance-based element to the grant system, incentivising local governments to continually improve their climate responses and planning mechanisms each year. Known as the Performance Based Climate Resilient Grant (PBCRG), it enhances the LGDG, the existing system of intergovernmental fiscal transfers, through which central government transfers funds to local government authorities for project development. Local governments can then allocate funds to projects prioritised with communities. An annual performance-based bonus incentivises districts to spend funds to achieve a set of agreed targets.¹⁷ The public nature of these investments ensures that communities can use laws and public standards that hold government institutions to account. PBCRGs are also tied to an investment menu — a list of proposed adaptation measures

¹⁷ The PBCRG is an innovation of UNCDF’s LoCAL programme.

drawing on in-country priorities — to ensure investments focus on climate change adaptation responses rather than traditional development interventions.

In practice, it was not possible to fully implement this system during the pilot. Doing so while also ensuring satisfactory fiduciary standards would have required the Ministry of Finance and Planning Commission to approve a specific project code for channelling donor or domestic funds to district authorities within the national budget management system, which it can only do at the beginning or middle of the financial year. A misalignment of the donor funding cycle (the project began in February) and delays in gaining approval for the project code meant that the pilot could not approve a code for the transfer of funds in the pilot.

To enable funds to flow with a satisfactory level of financial management, local NGO Hakikazi Catalyst acted as a temporary agent for the district government. IIED channelled funds through Hakikazi Catalyst, who acted on behalf of the government in making payments to service providers. Hakikazi Catalyst followed existing government fund management procedures, which allowed local government staff — including the chief accounting officer — to maintain oversight.

The pilot split the allocated US\$1.174 million (TSH2.7 billion)¹⁸ in climate finance evenly across the the three districts 10 divisions, administrative units that usually consist of several wards each. A district can have three or four divisions. The pilot covered the following divisions:

- Kisongo, Makuyuni and Manyara in Monduli
- Ketumbeine, Longido, Enduimet and Engarenaibor in Longido, and
- Sale, Ngorongoro Conservation Area and Loliondo in Ngorongoro.

Ninety per cent of the finance made up the investment fund and ten per cent was for operational costs. In each district, the funding followed a 70:20:10 allocation, with:

- 70% prioritised at division level in consultation with communities
- 20% prioritised at district level, and
- 10% divided across division and district levels to facilitate travel to meetings, organisation of events, supervision of investments, M&E and communications, allowing fund institutions to operate independently.

¹⁸ US\$1:TSH2,300

Fund structure

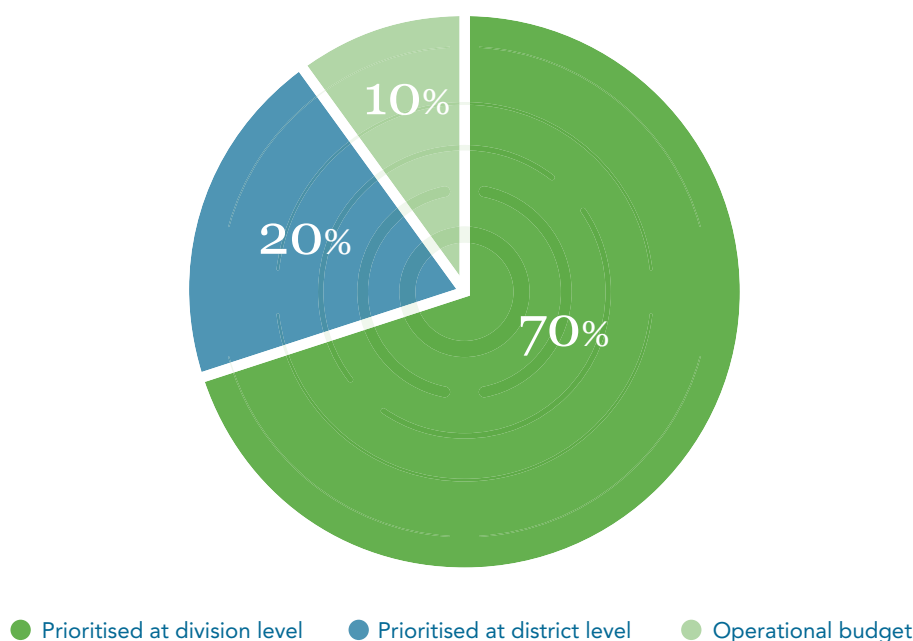


Figure 4 Allocation of funds across key actors

The fund structure was underpinned by several key premises.

Premise 1. Empowering and resourcing adaptation committees, particularly at division level, where they are composed of elected community representatives, can achieve greater value for money for administering investment funds: This will also help ensure the committees consult and are accountable to the community, develop proposals, contribute to project designs and oversee implementation in partnership with district technical staff. They are also key to the M&E of investments. The investment fund (90% of the total allocation) was for investing in local public goods that built climate adaptation and climate-resilient development at district and division levels, prioritised by communities against a set of strategic and technical criteria (see Box 2). The remaining ten per cent covered operational costs.

Premise 2. Adaptation must be tailored to local context: Elected, representative division-level committees are better placed than districts or villages to identify community-prioritised investments that build climate-resilient development. In responding to climate change, and compared to the existing village-led approach, the division can take a landscape approach to planning that takes local livelihood strategies into account. This means the investments they identify will be more sustainable, benefit more people and lead to transformative adaptation to address future climate change. PO-RALG agreed to pilot the use of the division for the DCF project given the challenges raised for the current system by the nature of climate impacts and local pastoralist livelihoods, which rely on mobility with livestock beyond village boundaries to remain productive.

Seventy per cent of the fund — US\$82,600 (TSH190 million) per district — was earmarked for investments prioritised at division level, with each divisional adaptation planning committee (DvAPC) responsible for consulting their communities to identify local priorities that will build resilience. Twenty per cent was earmarked for investments prioritised at district level (see Figure 4). This

represented US\$70,000 (TSH162 million) for Monduli and Ngorongoro and US\$94,000 (TSH215 million) for Longido. Each district adaptation planning committee (DAPC) could decide whether to spend this on district-wide investments or harmonising multiple division-level investments to seek greater value for money.

Box 2: Criteria for prioritising investments

On a strategic level, investments should:

- Focus on public goods that benefit many, including women and young people
- Support the economy, livelihoods or important services on which many people depend
- Encourage harmony and build social relations between people to foster peace
- Enhance resilience to climate change (adaptation) and where possible, propose mitigation measures, using a resilience investment menu to guide the nature of eligible investments
- Not have a negative impact on the environment, and
- Meet local development priorities, districts and village plans that integrate climate change.

On a technical level, investments should:

- Have a realistic and achievable work plan, including technical support for implementation where appropriate
- Show evidence of stakeholder consultation, including cross-boundary consultation where appropriate
- Offer value for money and modalities for sustainable achievements
- Develop a theory of change and M&E plan to track beneficiaries and achievement of objectives and benefits, and
- Provide evidence that the project does not duplicate other investments planned by local government or other actors.

Premise 3. Planning against known guaranteed budgets encourages a more effective, participatory, transparent and accountable planning process that delivers high-priority investments that benefit the vulnerable with good value for money. Districts informed divisions of their budget in advance of the planning process, a design feature that aimed to end the submission of hopeful investment shopping lists and encourage careful prioritisation.

Component 2: Fund institutions

The pilot established representative DAPCs and DvAPCs to identify, prioritise and manage investments in local public goods that would strengthen the adaptive capacities of communities financed by the fund. DvAPCs, composed of elected community members (see Box 3) and ward councillors played a key role in bridging village, ward and district planning.

Box 3: Electing DvAPC members

DvAPC members were elected through an innovative process whereby villages nominated a small number of potential representatives, who were then selected by ward development committees, key local governing bodies that are responsible for coordinating development activities in a ward.

Village executive officers circulated advertisements for volunteer members at village level at the request of Hakikazi Catalyst. Unlike other formal bodies, a formal education was not a prerequisite and members did not have to be fully literate.

Village assembly meetings — gatherings for discussing local issues — discussed the applicants, and elected those they felt are honest, trustworthy and had a good understanding of local development priorities. The ward development committees then identified one male and one female member from the village nominees to represent the ward as members of the DvAPC.

This process has broadened participation in the election process, deepening local ownership of the committees and their purpose. The decision not to require formal education has enabled a wider range of respected individuals to join DvAPCs, particularly women from more remote areas.

The key premises of working with DvAPCs were:

- Planning for climate change requires planning at a larger spatial scale than current village-level planning.
- Government legislation identifies divisions as avenues for representing central government at local level through divisional secretaries who report to the district executive director.¹⁹
- Divisions are a cost-effective way of identifying investments to support adaptation and climate-resilient development.
- DvAPCs play a strong role in bridging community planning which ranges over wide spatial scales with local government authority planning, which is limited by formal village boundaries. The granular village focus prevents strategic investments in a context where resource use spans large areas. The divisional approach enhances the existing O&OD planning process by feeding in community priorities that draw on customary knowledge and planning systems.

To incorporate these premises, the committees were composed mainly of elected community members capable of representing local priorities. Half of the committee members were women. The government-appointed divisional secretary and ward councillors joined the meetings but could not vote on formal decisions. Co-opted technical staff could also join by invitation as ex-officio members without voting rights to reduce the influence of ongoing party politics. DvAPCs are legally registered community-based organisations, enabling them to be allocated an operational budget so they can travel across the district and organise their meetings independently.

¹⁹ Government of Tanzania (2006) 1982 Regional Administration Act: Amendment to Section 17.

DAPCs consisted of senior district technical staff and the chair and secretary of each DvAPC in the district. They were chaired by the district executive director, with the district planning and learning officer taking as secretary. The premises of working with DAPCs were that:

- The district government's discretionary authority is necessary to ensure investments are coordinated.
- The presence of authoritative district figures plays a role in ensuring district buy-in to the process and facilitating technical support to investment design and management.
- Although DAPCs hold discretionary authority over the fund, they cannot refuse any DvAPC proposals that meet fund investment strategic criteria (see Box 2).
- The strategic criteria, developed through discussions with local governments, ensure that communities focus on climate investments and reduce attempts to use investments for political purposes or to marginalise groups.
- Technical criteria ensure proposals meet a comparable standard of scrutiny and accountability, that due diligence can be carried out on investments and that measurable change for investment users is identified to enable accountability of DCF institutions by members of the public.

The climate adaptation fund also includes an operational budget for DAPCs, enabling them to meet and travel to potential investments as necessary to carry out their duties. They prioritised 20% of the total adaptation fund budget and could use this to add value to divisional investments.

Districts also created district adaptation advisory boards (DAABs), chaired by the district commissioner and with the district council chairman as secretary, to provide oversight and accountability on investments.

Component 3: Resilience planning tools

Resilience planning tools enabled local governments to identify practical and cost-effective ways to use planning to strengthen local adaptive strategies and build longer-term resilience to climate change. They also enabled communities to more effectively articulate existing livelihood strategies in a format government officials could understand. The premise was that mainstreaming climate change and climate resilience into O&OD would encourage more effective long-term planning. The tools included:

Resilience assessments and participatory digital resource mapping: These enable more informed discussion between communities and local government planners on the factors that strengthen or weaken local livelihood systems in the face of climate variability and change, differentiated by production system, gender and age. The tools complement O&OD by empowering local people to explain to those external to their community, such as government planners or NGO staff, the logic of their adaptation strategies in the face of climate variability and change. They provide an opportunity for local governments and communities to discuss how local livelihoods function and interact, the factors that constrain their resilience to the impacts of climate change and practical ways to build adaptive capacity and long-term resilience.

Improved CIS to inform decision making: The plan was for districts to establish systems for disseminating information about short and long-term climatic changes. Such systems can inform improved community planning in response to known changing conditions. But services in the pilot were not rolled out in a structured way, so they are not a focus of this study.

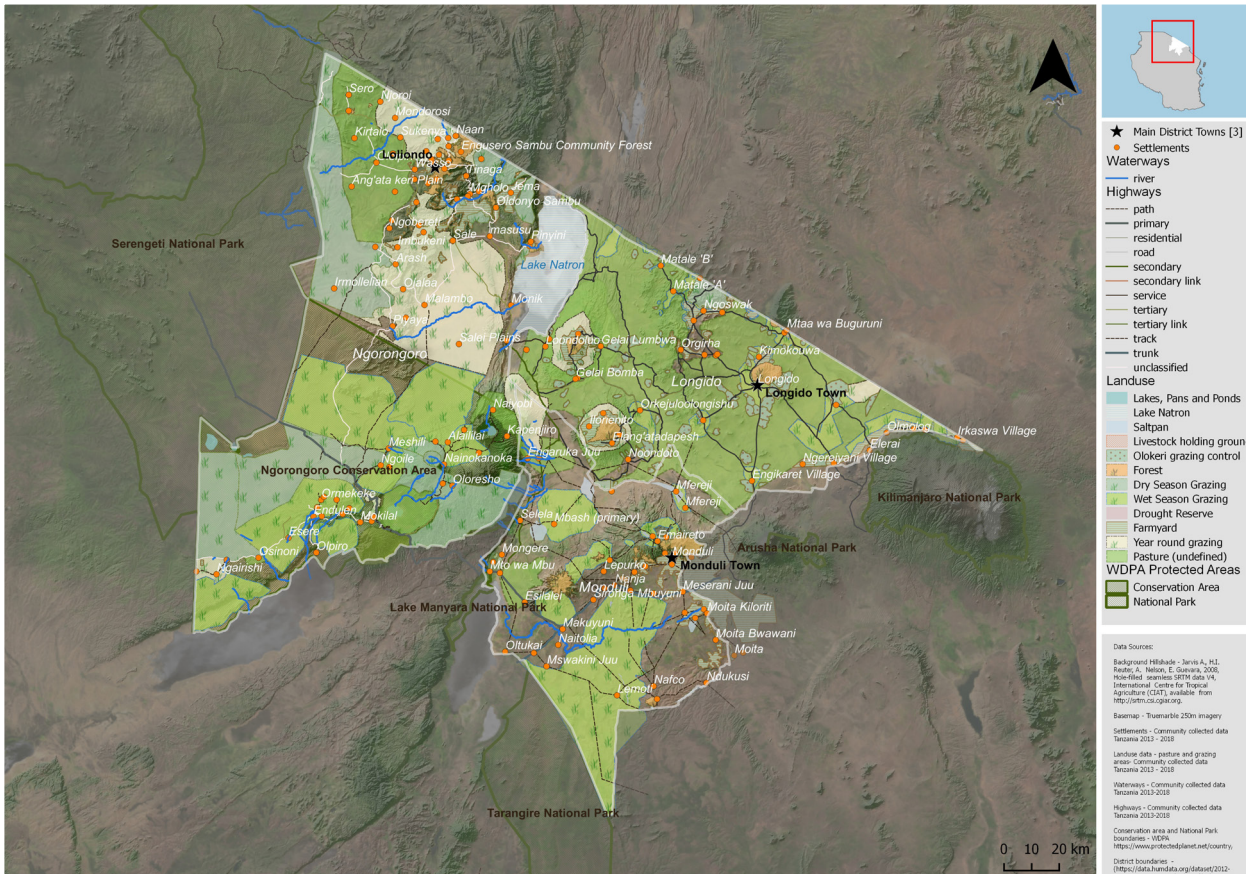


Figure 5 Resource map detailing land use according to community members across three districts

Source: DCF Consortium²⁰

Component 4: Monitoring, evaluation and learning

Districts and divisions were trained on IIED’s TAMD approach so they could develop theories of change for each investment and assess their own capacity to respond to climate change. Local government authority M&E systems focus largely on inputs without assessing outcomes or impacts of climate adaptation and climate-resilient development. The TAMD approach enables governments to assess their own capacity for climate risk management and community members to develop their own theories of change and indicators to gauge the effectiveness of an investment.

The premise of improving local government M&E with TAMD was that their ability to demonstrate the effectiveness of adaptation for climate-resilient development could justify greater funding from other climate finance sources or performance-related funding, serving as an incentive.

In practice, the programme closed not long after investments were completed and very little M&E took place. As a result, we gathered little substantive feedback on the value of TAMD from our focus groups and interviewees, so we make no further comment in this paper.

²⁰ DCF Consortium (2018): Scaling up devolved district climate finance in Tanzania, community-based mapping of pastoralist resource and their attributes. Unpublished

2.2 Aligning autonomous and formal planning

The components of the DCF mechanism were designed to enhance existing planning systems and incorporate greater community engagement in the planning process, enabling them to align with the customary planning that underpins autonomous adaptation to climate change.

In Monduli, Longido and Ngorongoro, pastoral livestock production is the mainstay of the local economy. Customary community planning mechanisms have “developed over many years in a context of ongoing seasonal variability”.²¹ Key strategies include planned herd mobility in response to variable availability of resources across time and space. Mobility is facilitated by customary leaders, who have a key role in advising the community on how local natural resources should be used and maintained over time, fining transgressors and negotiating reciprocal access between clans and village authorities.

But a long-standing development deficit and investment policies and programmes that do not reflect customary planning systems and priorities have squeezed the enabling environment for autonomous adaptation strategies in northern Tanzania. Water and livestock health infrastructure, developed to cater for a smaller population, have fallen into disrepair while land use planning and the fragmentation of rangelands undermine herd mobility and reciprocal resource access.

Inclusive policymaking that addresses the development deficit and enables adaptation requires a shared understanding between government and communities of the key constraints to adaptive livelihoods.²² Local governments, with a mandate to invest in context-specific socioeconomic development have an important role in this process. Local authorities can implement planned adaptation that supports collective action with potential for transformative, positive change towards resilient local livelihoods.²³

The components introduced by the DCF pilot addressed existing limitations and gave local government and communities the tools to build understanding and invest in community priorities that could better facilitate collective action.

²¹ Greene, S (2015) Enabling resilience: bridging the planning gap in Tanzania. IIED. See <http://pubs.iied.org/17288IIED>

²² Sharma, V, Orindi, V, Hesse, C, Pattison, J and Anderson, S (2014) Supporting local climate adaptation planning and implementation through local governance and decentralised finance provision. *Development in Practice*, 24:4 579–590

²³ Anderson, S (2015) Getting ahead of the curve: when climate adaptation has to get radical. IIED

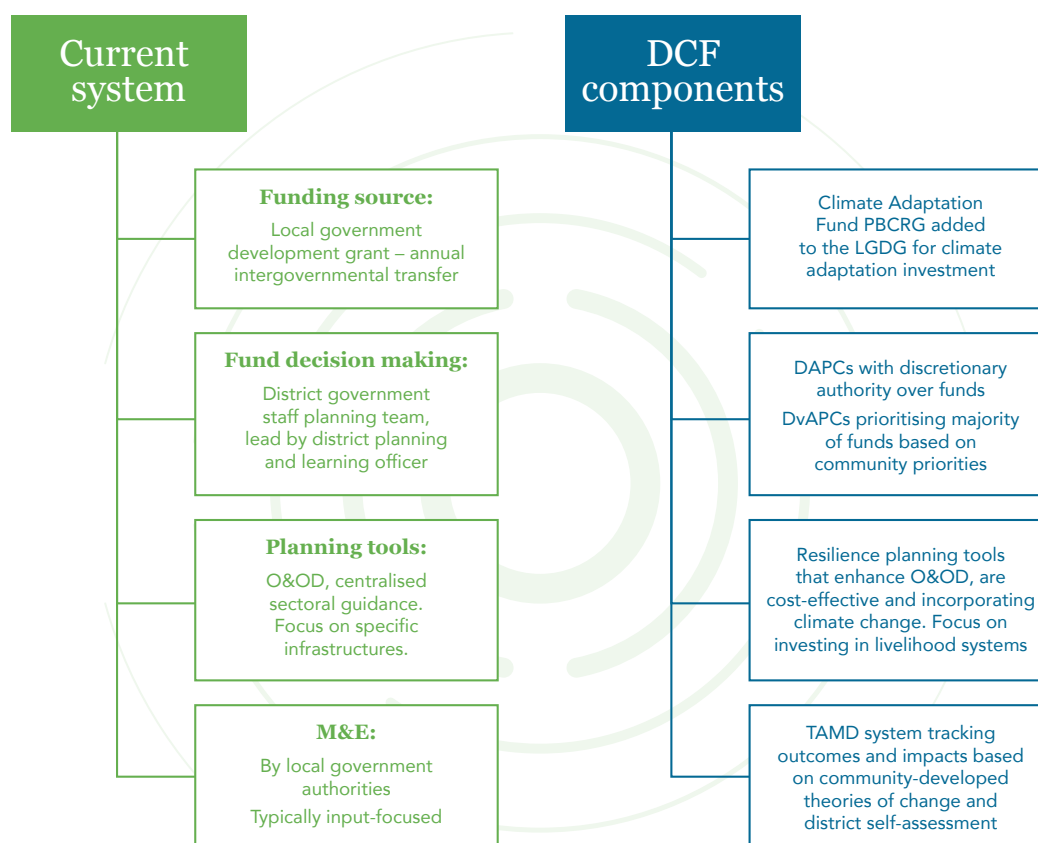


Figure 6 A comparison of the existing system and the DCF approach

Table 2 Comparison of O&OD and DCF planning features

Category	O&OD	Pilot DCF mechanism
Participation	Participatory rural appraisal tools carried out by local government in every village. In practice, rarely carried out effectively.	Participatory climate-resilient planning tools based on participatory learning and action approaches carried out by local government with community elected representatives of each division. Piloted through the DCF mechanism.
Estimated cost	TSH215 million (US\$94,000) per district, based on staff visits to each village for consultations.	<p>Resilience assessments:</p> <p>TSH 6 million per division (US\$2,600)</p> <p>TSH18 million per district (US\$7,800)</p> <p>Participatory digital resource mapping:</p> <p>TSH24 million per division (US\$10,400)</p>

		TSH72 million per district (US\$31,500) ²⁴ Total: TSH30 million (US\$13,000) per division TSH90 million (US\$40,000) per district
Accountability	Local councillors may represent community complaints.	Accountability goes up to government and down to communities: elected divisional committee members are accountable to the communities they represent, the local government ward development committee members and councillors and vice versa.
Budgeting	Carried out by district officials and approved by district councils.	DVAPCs responsible for budgeting 70% of funds, investing in their own areas and planning against a known budget. District prioritises 20% of funds.
Funding source	Local government development grant, variable each year. Not currently operational.	US\$1.174 million (TSH2.7 billion) across three districts over one, year provided by DFID's UKAid.
Funding criteria	Reflective of community concerns, but in practice centrally guided.	Strategic and technical criteria (see Box 2).
Inclusivity	Gender responsiveness not a feature of O&OD planning process.	50% of DvAPC members are women.
Spatial scale	Planning at village level.	Planning at division level.
M&E	District M&E unit focused on delivering outputs.	TAMD approach incorporating district self-assessment and community-defined outcome indicators.
Procurement	District-led and guided by procurement regulations.	District-led and guided by procurement regulations.

²⁴ Costs based on most recent assessments in January 2017. Initial resource mapping tends to cost more as it involves building new maps from scratch with facilitators who are new to the process. Following years should be less expensive as communities and government update and validate maps in a shorter process.

3 Methodology

To frame learning drawn from the experience of implementing DCF, the consortium developed a learning framework that would identify evidence to justify scaling out the approach. The first stage of the framework focuses on the added value of the DCF mechanism in preparing districts to plan and respond to increasing climate variability, incidents of extreme weather events and longer-term climate change. Comparing how well DCF strengthens local government planning in response to climate change against the start-up and recurrent costs of establishing the approach recognises the need for value for money.

Beyond added value, the framework also looks at how effectively the adaptation investments that result from this planning deliver more resilient livelihoods for the most vulnerable. Although it is too early to tell whether investments are delivering resilient outcomes, we can gauge community anticipation of positive results. The strategic learning focus looks at potential synergy between the DCF mechanism and other drought, disaster risk response and relevant development mechanisms, including the Tanzania Social Action Fund and climate-smart agriculture strategies. It also asks the extent to which the DCF mechanism supports key constitutional objectives and national economic development plans detailed in Vision 2025, national climate change action plans, nationally determined contributions and the Sustainable Development Goals.

This paper contributes evidence to stage one of the learning framework: the value added to district planning processes through improved participation, knowledge of climate change, stronger institutions and better community-government partnerships. Our study chiefly sets out to understand if and how the DCF mechanism has enabled districts to make appropriate investments for building climate resilience that are attuned to local context and support a process includes the differentiated priorities of women, youth and marginalised groups in the face of climate impacts.

3.1 Designing and implementing the study

We used a realist evaluation methodology to explore these questions. Realist evaluation, which seeks to understand “what works, for whom, in what circumstances and why”,²⁵ helps researchers explore the causal mechanisms (triggered interventions interacting with elements of the context) that lead to observed outcomes and the contexts that produce them.²⁶ Realist evaluative methods have been used to assess elements of other DFID programmes including ‘Building Resilience and Adaptation to Climate Extremes and Disasters’ (BRACED) and ‘Building Capacity to Use Research Evidence’ (BCURE).²⁷

These methods draw on ‘intervention-context-mechanism-outcome’ statements or configurations as a tool to explain events. Through qualitative research, focus group discussions and informant interviews, a theory or hypothesis emerges that explains the nature of outcomes and why they have occurred in the way that they have.

²⁵ Pawson, R and Tilley, N (1997) Realistic evaluation.

²⁶ Puntun, M, Vogel, I and Lloyd, R (2016), Reflections from a realist evaluation in progress: scaling ladders and stitching theory. Centre for Development Impact.

²⁷ Leavy, J, McDowell, S, Boydell, E, Fitzgerald, G and Giordano, N (2017) Evaluating complex programmes: reflections on realism and resilience. BRACED.

Our research in Tanzania

The research team consisted of individuals from DCF Consortium partner institutions including IIED, PO-RALG, IRDP, LGTI, Arusha Regional Secretariat, Monduli, Longido and Ngorongoro districts and Hakikazi Catalyst.

The team reviewed internal and published documents associated with the project (see Annex 4). Although some team members had first-hand knowledge of project implementation and detailed knowledge of the mechanism, we drew further guidance for shaping the approach from the learning framework document. This offered indicators for measuring how much value the DCF mechanism added to district governments' climate-relevant planning, how well investments supported local adaptive and resilience strategies and how inclusive the planning was (see Annex 3 for the full learning framework).

The study carried out focus group discussions in Monduli and Longido districts with members of the institutions established by the pilot to support climate-resilient planning. The team visited four divisions, Ketumbeine and Longido Divisions in Longido, and Makuyuni and Manyara Divisions in Monduli. Factors for choosing these divisions included:

- The opportunity to engage two of the three target district authorities (Monduli and Longido)
- The need to understand experiences of a range of investments supporting the two dominant livelihood types (farming and pastoralism), and
- Practical considerations around accessibility of locations in the time available.

Focus group discussions involved district technical staff and members of district and community-level committees, including user management and voluntary committees responsible for ensuring proper use and maintenance of new investments (see Table 3). Interviews were carried out with district leaders.

Table 3 List of interviewees and focus group participants

Monduli		
Interviews	2	District Executive Director, District Commissioner
Focus groups	6 men's groups	DAPC
	6 women's groups	DvAPC
	Each with around 10 participants	Esilalei, Losirwa, Rendereni and Mtu Wa Mbu user management committees
Longido		
Interviews	2	District Executive Director, District Commissioner
Focus groups	6 men's groups	DAPC
	6 women's groups	DvAPC
	Each with around 10 participants	Losirwa, Alaililai, Orbomba and Namanga user management committees

4 Emerging evidence supporting the premises

Emerging evidence for the key premises of the DCF approach relates to the four components of the DCF mechanism: the climate adaptation funds, the fund institutions, resilience planning tools and M&E.

4.1 Climate adaptation funds

Each DvAPC held less than US\$8,260 (TSH19 million) for operational activities, enabling them to hold meetings, inspect investments and travel as necessary independently. The operational fund enabled DvAPCs to oversee each stage of the project development process, including planning, proposal development, procurement, implementation and M&E.

4.1.1 Planning

DvAPCs carried out widespread consultation, holding meetings with religious and savings groups, attending village assemblies and ward meetings. Attendance records identify over 10,000 people engaged in some form of consultation across all three districts. This is at least equal to a typical O&OD process, and the nature of consultation provided greater community ownership of final decisions. It also identified investments that more clearly reflected community priorities: the focus on strategically placed water sources and livestock facilities in some areas and flood prevention of key crops in others reflect dominant livelihood strategies.

Consultations cost around US\$18,700 (TSH43 million) per district. A direct comparison to O&OD is challenging, as few figures are publicly available. Longido's O&OD cost around US\$93,500 (TSH215 million)²⁸ while one GIZ-supported attempt to reform O&OD in Handeni district streamlined the process to US\$24,350 per district (TSH56 million) or US\$217 per village (TSH500,000).²⁹ Although the latter is comparable to DCF costs, it is not clear how responsive Handeni's streamlined O&OD is to climate hazards or whether it reflects the nature of local resource use, both explicit aims of the DCF division-led approach.

The wide consultation increased the likelihood of community ownership, actualised through village government commitments to new investments. For example, two sub-villages in Ketumbeine that use a water tank and livestock trough funded through the climate adaptation fund split the cost of a night watchman, which came to US\$22 (TSH50,000) a month for each village. Namanga village government paid for the land where water tanks paid for through the climate adaptation fund were built. Communities contributed cheap labour to reduce budgets over and above the usual rate required by government investments. This included digging, providing security from wildlife, sourcing water for cement and providing food and accommodation for construction workers. The DCF planning process generated ownership of investments at community level at comparable costs to existing O&OD processes.

²⁸ Figures are from internal district documents shared with the author.

²⁹ Support to Local Government Processes (SULGO) Programme (2013) Hodi Hodi O&OD has come to Handeni: how people in Handeni are making the opportunities and obstacles to development work for them. GIZ.

All decision-making bodies involved in the DCF pilot said that the strategic criteria helped focus their decision making. Their reasons were different at different levels. For DAPCs, the strategic criteria were like any other external donor-funded criteria: clear requirements they must meet to receive funding. When the driving incentive is accessing funding for local investment, meeting donor requirements is a recognised reality that district staff are used to. At DvAPC level, the criteria eased decision making. The strict limits on funding choices provided by the criteria helped DvAPCs face the common challenge — reported by Ketumbeine DvAPC — that local people have limited knowledge of climate change. As one focus group participant from Keturmbenie division explained, “Before awareness of climate change and resilience, some people wanted classrooms and dispensary investment.”

Planning against known budgets: During the pilot, DvAPCs knew their budget in advance — village-level focus groups in Namanga cited increased transparency as an important outcome. The process for developing projects varied across DvAPCs. In some cases, sub-village assemblies made a series of specific requests to DvAPCs for prioritisation. In others, DvAPCs developed proposals based on information gathered through village assemblies and other oral consultations. Committees often found themselves with many potential viable options to submit as proposals to DAPCs. To keep proposals in budget, they prioritised using cost, community need and location as key internal criteria. In some cases, DvAPCs compromised — for example, at Alailiali in Ketumbeine, the ability to reduce conflict between three villages with a strategically placed, shared access to a water intake took precedence.

4.1.2 Proposal development

The DCF mechanism requires all investment priorities approved for funding by DvAPCs to be written up into clear proposals detailing how the investment meets strategic and technical criteria. This allows due diligence and oversight by donors and government stakeholders. In the pilot, there were significant delays in writing proposals for review as few DvAPC or district officials had the skills or experience to write in proposal formats and in English. This delayed approval and had notable consequences once a hard deadline was set for full project closure. With proposals approved towards the end of 2017 and the end of the project looming in early 2018, districts and service providers rushed to finalise designs and complete construction, sometimes compromising on quality.

The driver of such delays was a lack of capacity and experience among DvAPC members and district support staff to develop proposals that effectively articulated the logic to explain how investments build resilience. The key capacity gaps were in writing formal, structured proposals, clarifying key concepts such as resilience and adaptation and distinguishing these from more conventional development investment.

Local government authorities’ planning capacity has been low since decentralisation in 1998. Rural district authorities have received little investment in technical capacity and systems and have not had reliable domestic sources of financing for concrete projects through which to develop robust internal systems and skills. Concepts such as theories of change, outcome-based M&E and structured value-for-money assessments are new and relatively foreign. This is exacerbated by a limited ability to write quickly in written English to enable donors to review documents.

A functioning, mainstreamed DCF approach would need to fit into government planning cycles, with hard deadlines for submitting and reviewing budgets. DvAPCs and district staff would have to submit proposals to enable PO-RALG or other partners to oversee climate finance allocation,

particularly if it is from the Green Climate Fund which has strict regulations for ensuring due diligence and review. In later iterations of the DCF mechanism, the DCF Consortium will need to consider ways to relieve the burden of report and proposal writing while still meeting donor criteria.

4.1.3 Procurement

The pilot followed government regulations in procuring service providers. Monduli district staff noted that project costs were lower than other donor-driven investment processes because they relied on local contractors when others favour more expensive national or international consultants. They also kept available budgets confidential, so service provider bids were based on real costs. This comparison to external investments is relevant, as local government authorities have few domestically resourced funds to invest in local infrastructure.

Because government regulations guiding procurement exclude community members from having meaningful roles in decision making, DvAPCs were unable to participate in this process as planned in the design. All three of DvAPCs interviewed requested greater input into procurement decisions. While most investments were delivered on time, two service providers in Longido and one in Monduli overcommitted by taking on multiple DCF projects and either began too late or had to pause halfway through construction. Communities argued that their input might have prevented these challenges from arising in the first place.

On the positive side, community members independently drove forward responsive action. They reported delays to local councillors, who reported them to district commissioners. The commissioners resolved this by temporarily incarcerating directors of the construction firms causing the delays until construction restarted. This use of democratic means available to community members and the firm

“Why did it cost less? It is because of the inclusivity of the community. I have learnt that when the community is thoroughly involved and come up with their own project, they provide a lot of information which helps in designing. The regular way of just sitting in the office and designing the project leads to cost inflation.”

Longido district official

response of district authorities are signs of a responsive feedback and complaints mechanism. But the focus must be on how to avoid these issues in the first place. Local government authorities may consider offering DvAPC members a meaningful say in the procurement process by allowing them to attend and contribute to Tender Board Review meetings.

4.1.4 Implementation

DvAPCs supervised service providers in project construction, contributing in some cases to improved quality. Longido district officials rated construction of investments at 90/100. For example, in Losirwa, when the contractor brought inferior materials not specified in the bill of quantities, the DvAPC insisted, with district engineers' backing, that they bring the materials originally budgeted. Ketumbeine DvAPC was able to make ad hoc changes to the design of a livestock drinking trough to reflect conditions on the ground.

We found two causes for low quality implementation, beyond disagreement between district and community. The first was the rush to complete projects before project closure. District engineers did not have time for colleagues to review project designs, which led to avoidable errors such as a livestock health facility in Mairowa with no electricity or water connections and a livestock dip in

Monduli without full connection to a water source. Second, the unusually heavy rains in the rainy season, which fell directly after project completion, washed away mud used to backfill water pipe channels in some places, exposing them to risk from further weather events or wild animals.

Many of these implementation failings are minor. In due course, and of the districts' own accord and expense, the livestock health facility in Mairova was connected to both water and electricity and user committees have ongoing responsibility for taking care of exposed pipes and ensuring repairs as part of sustainability measures. But these experiences demonstrate the fundamental role of technical staff and their need for time and support to work effectively.

4.1.5 Investments that meet local priorities

A key premise of the approach held that community representatives are better placed than district or village-level officials to identify resilience-building investments that respond to the local context and therefore benefit more people.

Table 4 Investments covered by this review

District	Division	Village(s)	Investment
Monduli	Makuyuni	Kambi ya Chui	Rehabilitating water intake
		Esilalei, Losirwa	Building cattle dips
		Mswakini	Rehabilitating cattle dips
	Manyara	Mto Wa Mbu	Flood control
Longido	Ketumbeine	Eorendeke	Building a reserve water tank Rehabilitating a cattle trough
		Losirwa	Building a reserve water tank Tap to access water for domestic use (domestic access point)
		Alaililai	Building cattle troughs Domestic access points Fencing the water source
	Longido	Orbomba	Building a water tank and pipes
		Namanga	Building water tanks and three domestic access points

Responses from focus groups at all levels noted that investments respond to important local priorities. The resilience assessments reflect the common refrain 'water is life': 19 of the 35 investments across all three districts were water projects. In Mairova, the community invested in fixing the failings of another donor's water project. Investments also supported dominant local livelihoods systems. Livestock health was the second priority, reflecting dominant livelihoods and economies, particularly in Longido. In Manyara, where agriculture is more dominant, the division invested in flood prevention channels to protect farming areas.

4.1.6 Supporting resilient livelihood strategies

Resilience assessments identified livestock mobility as key to resilience for pastoralist livelihoods. Strategic identification of good quality pasture and planned migration in response to changing conditions maximises herd productivity throughout the year. Water availability is key to this strategy, as livestock can only travel limited periods without water. The availability of reliable cattle troughs, supplied by year-round water sources, within two to three days of good quality forage widens opportunities for strategic mobility. During the dry season, when mobility places high energy demands on livestock and they are weaker, water sources with less congestion provide more grazing time and reduce the risk of spreading fatal diseases. Lower dry season livestock mortality enables more stable, resilient herds.

New troughs have opened up previously inaccessible grazing areas for pastoralists — particularly in Ketumbeine — reducing overcrowding and demand elsewhere. Troughs at Losirwa and Alailiali, which are strategically located on livestock routes, will also benefit pastoralists from outside the community in the dry season. DvAPCs and villages influenced engineers and service providers to design longer troughs, enabling simultaneous access for herders and reduced time waiting. The troughs should enhance resilience through efficient water access and by facilitating year-round productive mobility. Larger herds provide greater financial and food security, acting as both bank and insurance policy.

“The system is different. Previous investments have been purely top-down: decisions come from the council, which get their orders from above. Government officials are basically just observers. Government projects are not in community interests — for example, building labs in schools that need classrooms.

“In this project, the community is involved all the way through, including supervision of the investments. They [community members] had time to prioritise properly, make decisions against the budget. They had time to input into decisions over construction.”

Citizen 1, Longido DvAPC

Where budgets permitted, communities fenced water sources to preserve their longevity, preventing erosion at the source, encouraging tree cover and reducing risk of personal injury. In Alailiali, for example, piping the water from the source has reduced the risk of injury or attack by wild animals when collecting water, particularly for women and children.

Livestock health investments in these areas mainly included cattle dips — chemical baths for livestock that reduce the risk of ticks in the wet seasons. Theories of change for these investments point to reduced livestock mortality and increased productivity from healthier livestock, which increase food and income, contributing to resilience.

4.1.7 Water access for women

The most notable and immediate outcomes came from the domestic access points at water sources, which were mainly targeted at women. The project’s baseline survey recorded that women are responsible for fetching household water and spend an average of three hours fetching water,

several times a week — longer in the dry season.³⁰ All focus groups at all levels recorded reduced journey and queuing times as the most significant outcomes of these investments. In the most extreme cases (Losirwa), journey times of seven to eight hours were reduced to under two. Shortening the journey times has reduced women’s vulnerability to drought and improved their health.

By spending less time accessing water, women can invest time in other activities such as farming or small businesses, cooking regular meals for their children and participating in community events. In Namanga, the only urban investment in the pilot, domestic access points mean women no longer have to cross the border to Kenya and pay inflated prices to bring it back. The rehabilitated water source in Alailiali has enabled a school and dispensary to function, as children and adults can bring water to school or to facilitate treatment.

But domestic access points were only included in the pilots after external intervention. This highlights the challenge of ensuring women and young people’s voices are meaningfully represented. In due diligence reviews of the proposals, Hakikazi Catalyst and IIED noted that, although resilience assessments stated that women wanted domestic access points, these were not included in project designs. They opened up proposals for review with local women’s groups, who advised incorporating domestic access points into water trough project designs.

Participants in the women’s only focus groups said they were able to state their views in meetings clearly. But the evidence around domestic access points shows that, while their voices were represented, they were not effectively heard. Their needs were not carried through into proposals and technical designs. This may be because existing on-the-shelf water project designs at district level featured only troughs and rushed engineers lacked the time or awareness to include domestic points. It may also be that the more dominant men on the committees omitted them from the proposals due to the perceived extra cost of including them. The DCF mechanism partners will need to consider why women’s priorities were overlooked and how to ensure that women’s voices are carried through to investments.

“In Mairowa, there was a water project [built by another donor], which cost TSH1.9 billion but did not cover the aspect of protecting the water source which was free for [open to] humans, livestock and wild animals. The DCF [project] fenced this source and built the cattle trough for livestock and wild animals 50m from the source. This had a very positive impact.”

District official, Longido

4.1.8 Flood prevention

In Manyara, where farming is the dominant livelihood source, the division invested in flood prevention channels around farmland areas. Early monitoring visits during heavy rain in November 2017 found the communities were delighted with the immediate reduction in flooding of crops. The consultant’s review highlighted that the channels had been designed deeper than usual, as part of a ‘no-regrets’ approach.

But extremely heavy rains in April 2018 during the study visit had overwhelmed the flood channels, leading to crop losses. The community reported the volume of water had overwhelmed farmland

³⁰ Government of Tanzania (2017) Decentralised climate finance in Tanzania: baseline survey report. Unpublished.

and that it would take several strategically placed water channels to prevent flooding. The example demonstrates that in some cases, it is important to consider spatial scales that are broader than the division — in this case, they needed to target a range of flood prevention channels across a wider area to secure resilient outcomes. A principle of subsidiarity is key to ensuring appropriate resilience planning takes place at the right planning scale. Designs for investments must also be ‘climate-proof’, reflecting historical data on rainfall amounts.

4.1.9 DAPC investments

All DAPCs underspent their allocated 20% of the total fund. Longido’s DAPC did not spend the funds after their plans for rain gauges and livestock health facilities fell through when they failed to generate a proposal within the timeframe. Monduli DAPC opted to build a livestock market, responding to demands in the resilience assessments. The problem statement in the original proposal noted that local livestock markets leave sellers at the mercy of low prices in ad-hoc market places dominated by middle men who take advantage of their need to sell quickly.³¹ The new market at Nanja is expected to address this by creating a dedicated, accessible livestock market, complete with scales, slaughterhouse, improved pricing information and livestock health services. While there is a strong local economic case for this, with tax revenues expected for government, the climate resilience benefit is more tenuous as it relies on increased income to improve pastoralist adaptive capacity and subsequently resilience. These cases demonstrate the need for further support and training at district level on how allocations can add value to the districts.

Context-relevant decisions

There is convincing evidence to argue that communities have invested according to local contexts and needs and to support dominant livelihoods. Other investments outside of the study area have had immediate, if unintended impacts. For example, Mairowa and Sinja warehouses, originally planned to support cereal banking, have provided emergency flood refuge.³² While some investments are having an immediate development impact, such as improved water access, it is too early to establish their long-term resilience or how transformative they might be. We discuss how well these investments respond to climate specific hazards in Section 5.

“For us, the difference [between this project and others] is on the decision-making process where the community was much involved from the sub-village levels, village general assembly, ward and then DvAPC and district committee; also the involvement of the community in project supervision.”

Citizen 2 – Losirwa user committee

4.2 Fund institutions

To facilitate improved planning mechanisms that recognise local priorities, the pilot created DvAPCs and DAPCs, new division and district-level institutions that bridge formal and traditional planning

³¹ Monduli District Council (2017) Improved access to livestock market for pastoralist communities in Monduli District. Internal document.

³² Cereal banking, originally raised in the 2014 resilience assessments, enables users to store maize purchases cheaply during the rainy season for personal use or resale when prices rise in the dry season. Price changes also correspond with livestock values, where livestock can be sold at higher prices to purchase maize in the rainy season.

systems and knowledge. Through the DvAPCs, communities incorporated local knowledge of productive adaptation strategies when prioritising investments. Through the DAPCs, districts mobilised technical staff to support project designs and ensure they supported existing policies. The pilot trained the new institutions and prepared them extensively on their roles, responsibilities and softer skills like managing conflict.

4.2.1 Divisional adaptation planning committees

DvAPCs were premised on the idea that the spatial scale of the division is more cost-effective and context-appropriate for planning adaptation. They were composed through an innovative process in which villages elected representatives who were vetted by ward governments. Districts agreed to trial the division as a planning scale based on learning generated through previous capacity building with district staff. The pilot has shown that divisions are cost-effective for community consultations at village level, including O&OD-type activities and direct meetings. DvAPCs have had to balance the demands of specific villages and existing village-based planning mentality with the opportunity to facilitate customary, strategic resource use. For example, investments such as water sources were located with pastoralist livelihoods in mind, particularly in Alaililai, but project proposal documents referred to benefits to particular villages, using census data from villages close to the investment to estimate beneficiary numbers, which does not take nomadic pastoralists into account.

It is likely that both formal and customary ways of thinking influenced decision making. Village-level focus groups in rural Alaililai and urban Namanga noted the benefits of a new water source or cattle dip to their own village or area residents. Division-level groups noted that some of their choices were driven by localised need, while also noting their closeness to cross-district livestock routes and that new water investments had relieved pressure on water sources elsewhere. So planning at divisional scale was more appropriate than village-level planning. Focus groups argued that the larger spatial scale enabled decision making on investment placement to benefit several villages at once when considering customary natural resource management priorities.

4.2.2 District adaptation planning committees

DAPCs, composed of district heads of department and DvAPC chairpersons, played an oversight role to ensure coordination with existing strategies, facilitating appropriate technical support. DAABs ensured higher-level figures like the district commissioner and council leader were kept aware of and able to input into the process.

There is clear evidence that engaging district authorities through DAPCs triggered the channelling of district resources to support investment processes. For example, in two cases where service providers failed to begin work on schedule, district commissioners used their authority to drive progress. DAPCs have encouraged local government ownership of the approach; these committees vetted all proposals and made recommendations to coordinate them with district development planning. Providing dedicated district coordinators as focal points for the project was also useful. Coordinators served as liaison between communities and government, organising meetings, providing advice and facilitating communication and training where necessary.

DAPCs ensured that technical staff supported project design and community development officers engaged in sustainability activities built into each proposal. The range of contributing staff included livestock and water engineers, community development officers, heads of department, DCF district coordinators, district executive directors and district commissioners. Local government investment was significant. Table 5 shows an estimated value of time, beyond that allocated for 'operational activities', committed in person hours and salary costs. This a conservative estimate as it excludes

the work of junior officers, extension officers and ward or village-level staff. Engaging local government through the DAPC encouraged its commitment to see the process through. The continued engagement of district commissioners throughout the project — including visits to projects and warnings to service providers over delays — is further evidence of this commitment.

Table 5 Estimated value of district time allocated to implementing the DCF mechanism in one year

Position	Committed days	Value* (TSH)	Value* (US\$)	Nature of role
District executive directors	10	1,500,000	652	Attending DAPC meetings Overseeing projects, including site visits Participating in procurement meetings
District commissioner	5	750,000	326	Resolving challenges with service providers Site visits
Water engineer	30	4,500,000	1,956	Design visits with DvAPCs, multiple projects Drafting designs, reviewing bills of quantity Overseeing service providers and validating quality
Livestock engineer	30	4,500,000	1,956	Design visits with DvAPCs Drafting designs, reviewing bills of quantity Overseeing service providers and validating quality
Community development officer	10	1,500,000	652	Writing and delivering sustainability training for user committees
Water officer	10	1,500,000	652	Writing and delivering sustainability training for user committees
Procurement officer	15	2,250,000	9,78	Developing contracts for ten projects Advisory services to Hakikazi Catalyst

				Participating in procurement meetings
District planning and learning officer	20	3,000,000	1,304	Chairing the DAPC
Division officers x 3	10 each	4,500,000	1,956	Participating in DvAPC activities and meetings
District coordinator	30	4,500,000	1,956	Focal point for DCF activities Main district liaison with DvAPC IIED provided 50% of salary
Total		28,500,000	12,391	

**Note: Salary values are based on an average of US\$1,304 (TSH3 million) per month, with 20 average working days per month.*

4.2.3 Positive partnerships

The most successful, well planned and high-quality investments were in divisions where a strong relationship grew between DvAPC and district, particularly the district engineers. In Longido, Ketumbeine and Manyara divisions, district engineers backed the DvAPCs' supervision of service providers, supported their project design modifications and maintained regular communication. There were numerous investments, particularly in livestock troughs, where the backing of livestock or water engineers meant service providers responded to community supervision.

Districts embraced the fact that DvAPC members held authority as a result of their election and subsequent registration as legal entities. DvAPC members responded to community support by reporting back to their villages and wards on a regular basis in meetings with the ward development committee and small village meetings. Training encouraged DvAPC members to act confidently when negotiating with other stakeholders. Good partnerships enabled social accountability mechanisms to function, with divisions and villages continuously monitoring construction work, which improved quality. DvAPCs developed supervision schedules with the district engineer, carrying out planned and surprise inspections of investments and materials brought by service providers. Where the relationship was not strong, the quality of investments was demonstrably weaker (see Box 4).

Box 4: The value of strong working relationships

The failed proposal to deliver boreholes in Makuyuni and Zaburi in Monduli's Makuyuni division demonstrates how poor partnerships undermine quality process. Initial DvAPC proposals requesting funding for boreholes in Makuyuni and Zaburi did not include any user access points, in the belief that a second round of funding would pay for piping and access. IIED rejected the proposals on the grounds that a second phase was not guaranteed and emphasised the need to deliver a project with usable, immediate outcomes.

There was subsequent disagreement between the DvAPC and district engineer (also acting district executive director) over how to power the water pumps. Having decided to focus on Zaburi only to remain in budget, the engineer favoured connecting the borehole to the central power grid, but costs were prohibitive. The community and others, including PO-RALG, advised exploring the use of solar pumps, but the engineer did not believe it technically feasible. The impasse continued until November 2017, when it was too late to begin construction as it would not have completed by the end of the DFID project grant period.

This case highlights the importance of a good working relationship between district technical staff and community members for securing positive outcomes. Community members felt that the district had ignored their role as decision maker, while districts felt that communities did not have the technical knowledge to make claims about how projects should or should not be designed. In truth, both sides were placed under pressure by an unexpected ending to programme funding and lack of clarity over where responsibilities lay.

The borehole situation was exacerbated by the perceived quality of other investments in the same division, where cattle dips were designed for local Zebu cattle and not the larger, higher-value Sahiwal and Borana breeds that are increasingly common in the area. As a result, the dips have been damaged and are not useful for many livestock. Engineers ignored community exhortations to copy improved dip designs in nearby villages and used older blueprints instead. When DvAPCs tried to influence service providers, they were told that the service provider worked for the government, not the community. This case demonstrates how ignoring community inputs reduces effectiveness.

4.3 Resilience planning tools

The pilot introduced and built on three tools to support resilience planning and contribute to Improved O&OD designs. Resilience planning tools are designed to build a shared understanding of livelihoods and risks brought by climate change.

In all the focus groups, district and divisional committee members noted the value of resilience assessments in changing attitudes. Village leaders, DvAPC members, traditional leaders, government staff and local councillors had all contributed to the resilience assessments, delivered in December 2014, which identified constraints to local livelihoods and began to consider appropriate solutions.

Digital resource maps, developed from 2013–2014 and updated in 2017, also helped communities visualise and define their resource use and allocation in the language of government. O&OD includes forms of paper mapping such as transect walks and other resource identification tools. But digitising the maps and superimposing resource use onto satellite maps enables greater accuracy

of scales and coordinates. It allows districts to share and replicate outputs to use the maps more effectively for planning. These tools also give traditional leaders and local councillors the resources they needed to inform their communities about climate threats. User committees — particularly in Esilalei — noted that leaders had committed to sharing their understanding at communal and traditional gatherings.

There have been two main outcomes. First, resilience assessments and mapping contributed to districts and subsequently PO-RALG recognising the value of the division as a spatial scale of planning in dryland contexts. Resource maps particularly demonstrated that village-level resource and land use planning is too fragmented to respond to the realities of local livelihood strategies, which depend on the ability to cross administrative boundaries. They highlight that customary approaches to resource use — including long-distance livestock routes or long distances to water sources — explain people's activities more effectively.

Second, priorities identified in the resilience assessments have carried through into DvAPC investment choices. Their priorities included improved land management, water source provision, livestock health and market improvements, and these were clearly reflected in funding decisions. The assessments provided a framework for communities to accurately identify key constraints and plan responses, with details finalised through community consultation.

Communities diverted away from the assessments in prioritising water over land management, which repeatedly featured as a higher priority. This may be because they view land management as a policy issue that is beyond the reach of DCF funding or due to a lack of communal agreement about how to address the issue. Participatory resource maps could address this issue, but neither district governments nor communities are currently using them effectively. More focused work on how to use resource maps to shape decision making, bringing together DvAPCs and local government, is needed to make the outputs from resilience planning tools more effective.

The Geodata Institute, responsible for leading training and technical oversight of resource mapping, found that capacity to use the digital maps to support planning was not strong and that few printing facilities are available.³³ Monduli has been using digital maps to support village land use planning — for example, to ensure grazing areas from multiple villages remained linked — but communities have little access to these maps, in physical or digital form. There was some positive anecdotal evidence of a group of women using the identification of resources on the maps to protect an area

“Resource mapping shows areas for resources — there are tools for land use plans and they should be protected. [It] depicts some areas used for cattle routes, pastures and dams... Planning for demarcation of settling areas for resources can make sure that cattle routes are protected, particularly water sources... The Maasai tradition says you cannot put ‘chaco’ dams everywhere because there is a tendency for overgrazing. Using the resource maps, the community is able to show district planners where they want resources.”

Elected representative, Longido

³³ Harfoot, A (2018) Resource mapping evaluation visit, January 22nd – 26th January 22nd – 26th. Internal report,

of land from investors. They were able to demonstrate that the area was reserved for grazing of smaller livestock and had particular value to the village.³⁴

While the maps and resilience assessments have changed attitudes toward local resources and climate planning, decision makers only occasionally referred to them for planning and budgeting purposes. Swahili language versions were not well distributed, further reducing their potential for wider use.³⁵ Technical capacity for rolling out resilience planning tools across planning is limited and the resilience assessment tool is relatively complex, requiring strong facilitation skills and an eye for detail and detailed note taking.³⁶

³⁴ Focus group discussion. Authors' notes, April 2018, Ketumbeine, Longido.

³⁵ J Rowley, J (2018) A report on two studies in Tanzania for the IIED DCF project (not published)

³⁶ For a guide to resilience assessments from Kenya, where the context is similar, see Adaptation Consortium: (2016) Resilience assessment Toolkit. www.adaconsortium.org/index.php/component/k2/item/329-resilience-assessment-toolkit

5 Discussion

In this section, we discuss the general findings and considerations that emerged from the pilot.

5.1 Costing the DCF mechanism

If the mechanism is to be feasible when scaled out across greater areas, it is important to understand the cost of establishing and maintaining it. The mechanism had relatively high start-up costs. This included investing in institutional strengthening at district level, training on resilience planning tools and TAMD and engaging PO-RALG to commit to piloting new approaches. IIED led the initial phases, working directly with local NGOs Hakikazi Catalyst and Tanzania Natural Resource Forum to build local government capacity.

If the decision is made to scale out the approach to new districts, the start-up costs in each district will be significantly lower. DCF Consortium's approach will be to work through the IRDP and LGTI, which will have lower transaction costs and fees as local government-subsidised institutions. Training costs will also be lower and delivered in local languages to enhance quality of learning. The data in this section comes from internal monitoring documents used to track expenditure and previous assessments of institutional strengthening costs in the districts.

5.1.1 Start-up costs

Responding to climate risk requires a basic level of knowledge about likely impacts and their interaction with local livelihoods that districts rarely have the time or financial support to develop. Their capabilities to understand pastoral livelihoods, climate change climate risk had to be built to enable them to understand and accept the logic behind the DCF mechanism.

The preparatory phase of institutional strengthening (2013–2015) in Monduli, Longido and Ngorongoro included: research on local livelihoods and their relationship to planning; building district capacity to use resilience planning tools; community engagement; dissemination; and regular meetings to share information with stakeholders. This cost almost US\$740,000 (TSH1.7 billion).³⁷ Some of these costs — such as local research — were one-off expenditures, while others will be cheaper in future when led by IRDP or LGTI.

The costs of electing and training DvAPC, DAPC and DAAB members, district councillors and other district technical staff, finalising resilience planning tools, engaging traditional leaders and the Tanzania Meteorological Agency (TMA) and bringing in local consultancy services to advise on government procedures and develop an operations manual to guide activities came to US\$200,000 (TSH460 million).

A costly but worthwhile investment was training DvAPCs on their roles and responsibilities at some length on two occasions. Having been formally established as community-based organisations, training gave members the confidence to lead village assembly meetings and confront service providers over the quality of work. Respondents' feedback on training highlighted the need elected representatives to be more empowered financially. They also need to understand the systems they are working with and where their responsibilities can positively impact the process.

³⁷ This figure excludes IIED management and oversight costs of US\$255,000 (£200,000).

Engaging traditional leaders through a series of joint meetings cost of US\$8,260 (TSH19 million) per district. The investment paid off as traditional leader took up roles in negotiating investments between villages and advisory services and mobilising public support.

Based on these figures, we estimate the cost of establishing the DCF mechanism in one district as US\$319,130 (TSH734 million). Although this is a large initial sum, it is based on recognition that planning in the districts starts at a low base and the new infrastructure provides a holistic system to make it more effective. It will probably cost less when government-led teams from IRDP and LGTI lead the process. Also, value should increase each year as districts continue to improve their investment choices and resilience as a result of a strong planning system.

5.1.2 Recurrent costs

Table 6 shows recurrent costs for Longido district. Total recurrent costs — covering the whole project cycle from problem identification with communities to planning, project design, oversight and M&E — are comparable to the cost of a full, regular implementation of O&OD (US\$93,500 or TSH215 million), which only covers identification of major challenges faced by communities. This represents a significant value. Total funds per district in the pilot round was US\$352,000 (TSH810 million) or US\$469,500 (TSH1.08 billion) depending on district size, producing 10–13 projects in each district.

Table 6 Estimated recurrent annual costs of the DCF mechanism in Longido district

Activity	Description	Cost (TSH millions)	Cost (US\$)
Resource mapping	District officials carry out the process with DvAPC members to build knowledge and support community planning. Mapping does not need to be an annual activity and like O&OD may be carried out every 3–5 years.	72	31,304
Resilience assessments	District officials carry out the process with DvAPC members to build knowledge and support community planning. Assessments do not need to be an annual activity and like O&OD may be carried out every 3–5 years.	18	7,826
Design and proposal development	Community consultation, designing projects and writing proposals.	45	19,565*
Procurement	Tender board and council finance committee meetings	3.13	1,360

Monitoring	Includes regional secretariat, district government and Hakikazi Catalyst team visits during construction	87	37,826
Projects handed to divisions	Formal completion and handover of projects to village governments	4.31	1,874
Audit by 'agent'	Hakikazi Catalyst audit of investments for internal due diligence processes	10.4	4,522
	Total recurrent costs	239.84	104,278

Notes: Many districts strive to carry out an annual O&OD process. While districts should not need to use resilience planning tools as a yearly process, the cost we quote in this table assumes that they seek to maintain it annually, in case this is the preference of PO-RALG. * DvAPC engagement is covered by operational budget.

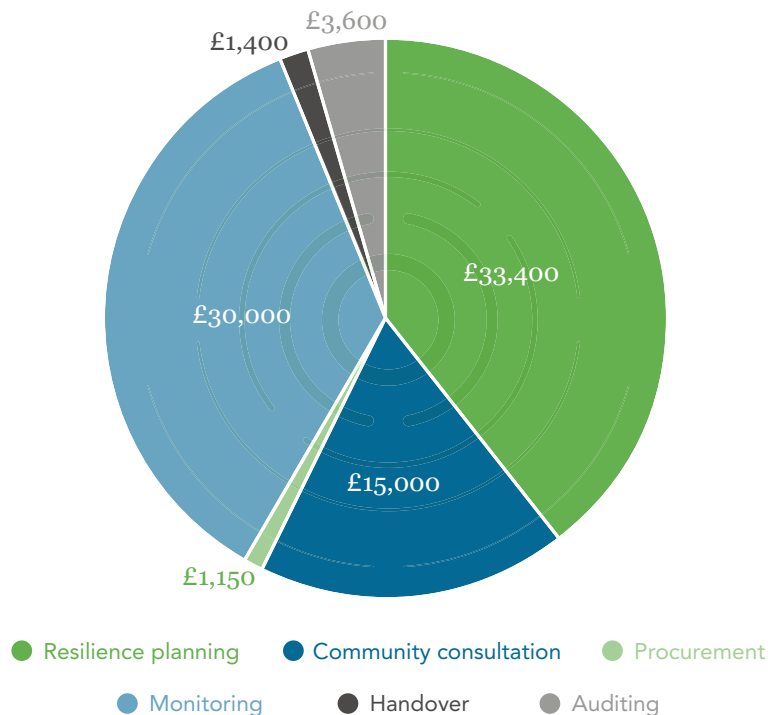


Figure 7 Estimated cost of facilitating one round of funding through the DCF mechanism in Longido district

5.1.3 The operational fund

An operational fund of US\$8,260 (TSH19 million) — ten per cent of the total budget — was not enough for any of the DvAPCs to carry out their responsibilities, even before they had attempted M&E related activities. This was not due to accidental overspending or poor budgeting, as all DvAPC budgets had to be approved in advance by the finance holding agent, Hakikazi Catalyst. DvAPCs in larger divisions such as Ketumbeine also pointed out that consultation and supervision require several hours of travel and an overnight stay, so their costs are higher than smaller divisions. The goodwill and sense of responsibility felt by these elected representatives mitigated this challenge. Aware of their accountability to communities, they funded transport from their own

pockets or supported each other to make payments where necessary. These are signs of communities' commitment and sense of ownership.

As it was not enough to carry out the work, the DCF Consortium should consider raising the ten per cent boundary. Allocating the same amount for operational costs across all divisions does not reflect realities on the ground. Increases should be based either on a formula for each division or on experience and input from the DvAPCs. The increase necessary would not significantly reduce the value offered by the approach as the higher costs are marginal relative to the overall recurrent costs.

"We have voluntarily done a lot of things without being paid because we believe that this is our project."

Citizen 3, Ketumbeine

5.1.4 Working at division level in non-pastoralist contexts

Local government authorities agreed to work at division rather than village level primarily in response to evidence demonstrating the cross-village nature of local resource use and the scale at which climate impacts will probably affect people. This makes sense in a context dominated by pastoralist livelihoods where strategic mobility across administrative borders is a key part of resilience strategies. Decisions about water sources, livestock health investments or market positioning have implications across districts as well as divisions.

In agricultural contexts, where villages, or small groups of villages, may mark the extent of most peoples' regular travel while practicing livelihoods, the need for working at division level is less clear. That said, a watershed approach may be more appropriate to address flooding. In these cases, divisional committees may need to make scale-appropriate decisions, with watershed committees making provisions for where these cross district borders. In fishing communities, spatial scales larger than the village can also be relevant, depending on how fishers source and sell produce.

In districts where farming or fishing make up the dominant economies, communities and government will need to consider the most appropriate scales for climate resilience planning. This will require flexibility, as the same planning scale may not be appropriate across countries. Local government authorities will need guidance for allocating funds across their own jurisdictions.

5.2 The importance of preparatory institutional strengthening

The pilot did not take place in isolation. Previous UKAid-funded work (2013–2015) had built understanding of climate change and local livelihoods within the districts, but funding was paused for nine months until the AIM 4 Resilience programme began in February 2016. UKAid announced the closure of the programme in late 2017, forcing the pilot to ensure all investments and other activities had finished before closure. The stop-start nature of the work necessitated repeated training, leading to frustration within districts and communities over the delays before funding began.

But the length of engagement enabled strong personal relationships to develop between district coordinators (the focal persons in each district), the project coordinating team based in Arusha and PO-RALG staff. These personal relationships are a key factor to the project's perceived success, as well as recognition within the districts of the role that DCF can play and the generally strong relationships between community divisional representatives and government.

The volume of funds received through the programme for infrastructure was another driver of ownership. Relative to usual district development budgets, US\$352,000 (TSH810 million) for infrastructure investments is a significant sum — around 30–35% of usual development budgets.³⁵ So this gave local governments and their politicians, who get little funding for local infrastructure, strong incentives to fully engage with programmes of this kind. Funding also came at a time when the LGDG had not been received for several years, increasing the visibility of any local-level service delivery. Investment by the project in building knowledge of climate change further raised the project up the district's agenda.

The significant upstream investment — including testing and refining resilience planning tools, introducing climate-specific concepts and building understanding of local livelihoods and resource use — was another factor. The most fundamental capacity building relates to changing attitudes around planning and building district ownership of the process of change.

The learning from the experience is that detailed and precise understanding of local knowledge or sustainability strategies is less important than a broader recognition that customary planning systems are sophisticated and have something to contribute to government planning. Customary planning takes a landscape approach and applies a principle of subsidiarity that is critical for resilience planning. Gaining public recognition that the existing planning system is not effective or set up for climate risk management is an important first step. Another necessary attitudinal change is recognising that climate change and planning cannot be easily separated. Institutional strengthening must be enough to create openness to new systems such as using the division rather than the village as a planning scale or establishing new community-elected bodies alongside ward committees.

A second area of learning is around the nature of the approach to capacity building. Government officials participated in every stage of the process. This includes the district coordinators and other staff who spent significant time and effort shaping, carrying out and providing feedback on external ideas and tools IIED and Hakikazi Catalyst brought with them. In line with lessons from previous studies, project champions (the district coordinators), local influencers and decision makers all played a significant role in advancing the approach, even as political or executive leaders and their staff moved on. Such engagement is more likely if there is funding for infrastructures that meet other goals and targets. Capacity building alone is not enough to generate ownership; there must also be a tangible end product that contributes to perceived development issues, incentivising engagement.

Attitudinal change

- Focused understanding of planning systems flaws and necessities for improvement
- Increased awareness of local (pastoralist) livelihood strategies and priorities
 - New understanding of the need for mobility and traditional planning systems
- Behavioural change at grassroots level
 - Establishment of community based forest management in Ngorongoro, and water management committee for Mt. Ketumbeine
 - Change in decisions on livestock sales and herd structures

Ownership of the process of change

- District staff owning process of resilience building
- Community ownership of planning process and future CAF – generates excitement
- Improved role of women
 - Evidence of women being able to speak more freely at communal meetings
 - Female traditional leaders given opportunity to contribute to strategy with support from male leaders

Increased responsiveness of planning

- Use of division as a spatial scale
- Resilience assessments as an improvement on O&OD
- Incorporation of resilience assessment findings into district planning
- Potential for use of resource maps in land use planning and development of resource committees
 - Use of completed resource maps during land-use planning in Longido
- Improved understanding of M&E

Figure 8 Summary of impacts of preparatory institutional strengthening carried out from 2013 to 2015

Source: Edited from Greene (2015)

Without changed attitudes and recognition of the need to improve planning systems, the DCF pilot could not have functioned effectively. The transferrable learning is the need for preparatory periods in any new districts the government of Tanzania wants to scale out to, particularly those with little previous focus on improving planning systems. Training on climate change, climate finance, planning systems, local livelihoods, resource use and fiduciary standards is key. The method of training is also important. IIED took a slow, participatory approach designed to place districts in control of the process — an approach necessary for a foreign, external institution. A PO-RALG led process, implemented by LGTI and IRDP, can use more convening authority to compel districts to follow new procedures. But an effective process will still make efforts to enable local government input into new systems, rather than compel them to follow overly rigid guides and manuals. Local knowledge, ownership and flexibility is key for government in successfully using new approaches, even when working within an established government framework.

Clarifying roles and responsibilities will also ensure partnership of citizen and state representatives, rather than suspicion or antagonism. Good partnerships depend not just on clarity, but also on

goodwill and relationship building. Preparatory phases should enable community representatives and districts to meet often, feedback on system structure and share learning.

5.3 The role of district technical staff

Local government technical officers play an important role in ensuring the DCF mechanism functions smoothly. Procurement officers oversee contracting with service providers, while ward and village officers coordinate investments within their jurisdictions, in some cases implementing by-laws to protect investments or enable them to function. While district leaders such as the District Executive Director and district commissioner play an important role, perhaps the most important 'hands-on' roles are engineers and the district coordinator.

5.3.1 District engineers

Technical support from the engineering department is needed to develop and approve project blueprints, validate the quality of service providers' work and sign off projects to enable handover to communities. Technical staff are also expected to deliver plans for multiple projects in a short timeframe. The same problem occurred in similar contexts in Kenya, where water engineers are also in high demand.³⁸ Having too few engineers working to tight deadlines can lead to rushed designs and mistakes or inadequate supervision of service providers.

The nature of the designs also hinges on engineers' skills and levels of training. Engineers with limited knowledge of climate impacts or trends will probably not be able to climate-proof investments ready for extreme events such as flooding. Limited opportunities to update their skills leave them unaware of new developments or technologies that could enhance their work, including solar pumps and panels that could serve as renewable power sources. For example, the engineer from Zaburi (Box 4) had never seen the latest solar pumps that could channel water from boreholes effectively.

Because engineers have unique skills in their district, it is difficult for others to challenge their opinions on construction progress or quality, so their colleagues in government will probably stand behind them. Where partnerships did not work between DvAPC and district staff, officials criticised communities for "talking about things they did not understand", wishing that they would focus on choosing, rather than designing, investments.

District engineers have an important role in shaping the quality of investments, recognising their environmental impact and empowering communities to engage in social accountability. Their role in introducing DvAPCs to service providers and giving them authority was crucial in successful investments. Specific training for their roles may be helpful — for example, building recognition of local innovations such as solar pumps. Encouraging them to engage fully with local knowledge, even where it defies existing knowledge, will contribute to improved designs, demonstrated successfully with cattle troughs and less so with cattle dips (see Box 4).

Design oversight will help avoid rushed mistakes that can happen in environments where capacity is relatively low. It may be helpful to include a step in the project design process for a second review of construction blueprints, to avoid challenges later on.

³⁸ Kenya National Drought Management Authority (2014) Isiolo County Adaptation Fund: activities, costs and impacts after the 1st investment round. Adaptation Consortium.

5.3.2 District focal points or coordinators

District coordinators or focal persons also play a key role, facilitating communication between DvAPC members and governments, organising and delivering training to DvAPCs and reporting back to the district executive director to ensure accountability. They also support proposal development, turning comments from DvAPC members into formal written proposals. The pilot created the coordinator role because the DCF approach needed focal persons within government to coordinate trainings, report to senior staff and provide advice. Their presence has confirmed the need, when mainstreaming the DCF approach, to appoint staff in each district to drive its four components forward.

The coordinator role is a challenging one — covering both technical advice and communication links — and the pilot demonstrated that the job is too much for one person. A team of at least two is necessary for coordinating the project's many moving parts and keeping all stakeholders updated on progress, activities or areas that need further support.

Proposal writing to enable due diligence will continue to be a challenge as long as districts have to report to either donors or PO-RALG. Community committees may need funds incorporated into their operational budgets to hire trained interpreters and writers who can articulate investments into predefined templates, explaining climate relevance, environmental and social safeguarding, logic, M&E plans and other details. Such funds would come out of operational budgets.

5.4 Investing in sustainability

Although the DCF investments are too new to assess their long-term sustainability, the issue is a notable challenge in Tanzania, where “a significant share of all water points (about 19 percent) fail within the very first year of construction. After 10 years of operation, another 30 percent of all points fail, and 40 percent after 20 years”.³⁹ One cause of high failure rates is confusion over who is responsible for operations and maintenance: local government authorities or community-led institutions.³⁹ In line with this data, most proposals in their first draft had no detailed strategies to ensure long-term maintenance and continued use.

IIED recommended that project investments include a budget for sustainability training of a village user committee. Committees received two to three days' training, where they developed business plans that identified how they would collect and accountably save contributions from users. Committees report savings directly to the village council, which reports to village assemblies, who hold them accountable for project funds. The training also covered how to draw up agreements with village governments and local government authorities defining where responsibility lay for oversight and paying maintenance.

Community development and district livestock and water officers delivered the training, drawing on existing training resources, some of which had been recently released by PO-RALG. Committees receiving the training ranged from experienced user committees who had worked on other projects to new committees who had never met before or received training.

At the time of the study, heavy rains meant that few water user committees had to operate every day except to ensure that newly built investments had not been damaged. Others had not yet begun

³⁹ World Bank Group (2018) Reaching for the SDGs: the untapped potential of Tanzania's water supply, sanitation, and hygiene sector. World Bank Group: Washington.

to function but were planning to start soon. Further study is needed to assess how effectively committees oversee collection and maintenance in an inclusive manner. Alailiali and Esilialei water projects noted that traditional management systems — in which households have access to the water source on allocated days to prevent overcrowding — would support their oversight. These village-level committees may provide a route for informal, customary systems of government to inform formal systems that enable public accountability.

5.5 Challenges integrating resilience planning tools

Resilience planning tools have been effective in identifying investments and convincing government that new spatial scales of planning can be useful. But to be fully integrated into the planning process, they need to be simplified or further training delivered

5.5.1 Resilience assessments

While resilience assessments helped explain livelihoods, government authorities have not carried them out independently since 2014. There are two main reasons for this. Local government authorities may not have felt they had authority or budget to carry them out without explicit support from more senior institutions such as the regional secretariat or PO-RALG planning division. Government regulations require delivery of O&OD rather than outputs from resilience assessments, and it is challenging in both manpower and budgets for local governments to attempt both mechanisms without external support.

Resilience assessments require advanced facilitation skills and rely on understanding a range of participatory techniques. Many of the staff who took part in initial resilience assessment trainings moved on before their experience and learnt knowledge was mainstreamed. The best format for disseminating findings from resilience assessments remains unclear, although actively disseminating Swahili language translations ward-level committees and councillors would seem essential.

These assessments need simplification and a renewed effort to deliver training on their implementation. The key to their use must be their cost effectiveness relative to O&OD and their simplicity to implement and write into usable documents. The LGTI, who are rolling out Improved O&OD training with support from the Japanese Development Agency JICA, would be the most effective avenue for this. LGTI could be tasked with developing training on resilience assessments and integrating these into Improved O&OD with PO-RALG agreement.

5.5.2 Participatory digital resource maps

Resource maps can provide a wealth of knowledge to inform government planning. They have significant potential to chart community land use, facilitate responsive land use planning through local by-laws and/or enable communities to identify key resources. But their use is not as widespread as it could be. Local government officials need further training to identify how they can incorporate ongoing mapping and use maps for different aspects of government planning. A practical investment in computers and printers within local government authorities would allow them to create sharable print-outs to examine with community members.

5.5.3 Climate information services

CIS can play a role in informing decision making for both communities and local governments. But this pilot made little headway in improving government provision for CIS. While previous phases of

engagement saw the TMA work with indigenous knowledge groups to develop improved forecasts, these appear to have little visible influence on planning-related decisions. Baseline survey data indicated that, although significant numbers of people obtained their information from traditional leaders, by word of mouth or through the radio, many were preferred to manage climate-related challenges “as they materialise”.

One problem often reported is the lack of relevance to local contexts and unhelpful language used in forecasts. TMA forecasts “refer to large geographical zones that are climatically diverse” and “are difficult to understand”.⁴⁰ Most people do not understand how to interpret statements describing rainfall as “normal” or “near normal” when a key feature of rainfall in Monduli or Longido is that it is variable and unpredictable. Local government authorities also lack understanding, with officials in Monduli and Longido conflating understanding of ‘climate’ and ‘weather’ and how these concepts can usefully inform planning.

The pilot had planned to develop CIS strategies for each district, with clearly defined roles and responsibilities for accessing climate information, downscaling for relevance to local contexts, disseminating information effectively and gathering feedback to improve in future. But due to congestion of activities, and the activity of facilitating local government strategies being new to TMA, these were never completed.

Effective dissemination of useful forecasts can inform pastoralists and farmers’ day-to-day decision making. About 30% of baseline survey respondents noted that the information they received informed their mobility choices with livestock or their planting decisions for crops. But designing systems that effectively disseminate information using existing government capacity is challenging and requires significant investment and support from TMA. One step forward may be for TMA to develop clear manuals for effective dissemination of climate information that districts can practically incorporate into their livestock and farming extension services. TMA also needs more support to consider longer-term climate trends, to enable communities and local government to think through development trajectories or needs for climate proofing at risk infrastructure together.

5.6 Integrating customary leadership

Communities in Monduli, Longido and Ngorongoro have well established customary community-organising structures, but trust in formal government here is limited due to a history of failed development interventions. Building trust and incorporating the knowledge of customary or traditional leaders is essential if a new approach is to be genuinely participatory and benefit from the depth of local understanding.

The traditional leadership plays key roles in community life and livelihoods. They disseminate information, provide representation to government, manage and resolve conflict between groups and regulate access to resources at key times of year. These activities are an important factor of resilience, coordinating communities to sustainably access pasture or water sources and negotiating reciprocal access elsewhere during times of drought. They are mainly carried out through customary methods, but in many villages dominated by Maasai ethnic groups, the line between informal and formal leadership is often blurred as traditional leaders are integrated into village or ward governance systems and many local by-laws are based on customary practices.

⁴⁰ Powell, R (2017) Proposal for a TMA communications strategy and plan for the Northeast Highlands Zone. Internal document.

This gives customary leaders both informal and formal legitimacy and a say in planning decisions and strategy, even if they do not have resources at the right scale to act on that legitimacy. The DCF approach invested in engaging and informing traditional leaders, holding several meetings delivering training on climate change, the resilience assessment findings and inviting politicians and government officials for dialogue and discussions. Village-level focus groups reported that traditional leaders engaged by:

- Mobilising community members to attend consultation meetings, such as DvAPC-initiated village assemblies
- Disseminating information about the DCF approach and climate change
- Advising DvAPCs on placement of investments and taking village and customary land use plans and the needs of different villages into account
- Negotiating investments choices between villages to reduce conflict, and
- Liaising between communities and government staff.

Strategic advice on placement of investments fell in line with traditional principles of resource management, incorporating customary and village land use plans, livestock routes and local needs for water sources. Engaging these leaders facilitated greater integration of formal and customary planning. Much of this took place outside of formal institutions — for example, DvAPCs took advice orally. Traditional leaders granted legitimacy to DvAPCs and their investment choices by association. Their authority reduces the potential for conflict between villages or clans, reducing sources of vulnerability for conflict.

But the institutions were weaker at ensuring that the priorities of typically marginalised voices were heard and incorporated into decisions. Senior leaders are generally men and tend to reflect and represent traditional cultural values around women's roles in the household and society. As a result, their recommendations implicitly validate principles that leave women waiting until after livestock have finished drinking or place emphasis on water sources for livestock — generally the preserve of men — rather than on domestic access for women. They also tend to overlook young people, assuming that they aspire to become warriors or marry and join other households.

5.6.1 Guaranteeing women and young people's priorities

Women across every focus group identified the investments as being particularly impactful. But obtaining this outcome also exposed weaknesses in the planning mechanism. Customary leaders, with their emphasis on preserving traditional cultural value systems, are not best placed to effectively represent women's priorities without training. Women struggled to have their voices meaningfully represented without external support. Women's focus groups in Longido also noted that they could not read detailed project documents such as bills of quantities of supplies and materials, which were written in English. This reduced their ability to provide scrutiny of investments.

At government level, there is typically limited recognition, or capacity to act upon, the differentiated priorities of women and youth in the face of climate impacts. A positive offshoot of traditional leaders' engagement was the creation of the Monduli Women's Forum, a regular meeting group of some 1,000 women to discuss and share the challenges they face, including climate change. The forum has established 18 ward-level groups of women who meet on a regular basis to discuss issues and gain access to external service.

The aspirations of young people were also excluded. The focus on investing in the resilience of livelihood systems makes it more difficult to focus down on alternative wishes of specific groups. If

traditional leaders and people who adhere to traditional cultural values dictate the system, young people's needs are likely to be subsumed into a homogenous community and ignored.

Further evaluation of the proposal design process is necessary to ensure designs recognise women's, young and disabled people's priorities and give these and other minority groups specific points of access to influence the process. This might enable their voices to be heard without the need for external intervention, though external accountability of the planning process will still be necessary. Civil society may also have an ongoing role in scrutinising planning to consider how it responds to the needs of women, youth and other marginalised groups.

Working with cultural conceptions of the role of men and women within households and society more generally will continue to be a challenge. Addressing these issues in the short term will require building practical steps into the guides and manuals that direct the programme to ensure women and young peoples' voices are heard. These may include:

- Alternating the gender of committee chairperson and secretary each year
- Opening spaces for women to consult collectively before consultation meetings at village or higher levels to provide a united voice or ensuring that village meetings include specific periods for women's and/or youth voices during discussions
- Identifying specific representatives for women, youth or other marginalised groups on elected committees and DAPCs, and
- Enabling formal scrutiny of final proposals by community-based or civil society organisations representing marginalised groups before final sign off, to ensure they meet key standards for inclusion.

Enlisting customary male and female leaders in driving inclusion will be an important part of changing both government and community attitudes.

5.7 Climate adaptation or development investments

A condition of the Green Climate Fund and other climate financing mechanisms is that funds are used specifically for adaptation rather than development investments. Programmes applying for funding must demonstrate that their outputs will focus on climate resilience specifically, rather than simple development outcomes such as increased water access.

A review by an external consultant found that, while most investments could be seen to respond to perceived climate risks such as drought or flooding, some project investments had a weak link to climate resilience. In a few cases, district engineers attempted to respond to future risks. The flood canals in Manyara division were over-engineered to make them deep enough to cope with extreme rainfall — representing a no-regrets approach to project design.³⁵ Unfortunately, these drainage ditches overflowed in the period of ongoing heavy rainfall during this study, demonstrating the need for more awareness of risks, based on greater understanding of historic and future rainfall trends. Climate risk mapping with communities using downscaled forecasts could provide this. A less complex approach may be to enhance O&OD with a flood perception map that draws on previous experiences of heavy rainfall to identify assets or infrastructure most at risk. Additionally, scenario planning to identify how communities might respond to a range of climate scenarios would enable more effective customary and government planning.

Another example of new approaches to climate-specific threats is the placement of domestic water points that are separate from livestock troughs. These represent a significant cultural shift in the

local politics of who has water access with what priority. Typically, women access water at a trough only after livestock. This makes household management more difficult as they have to queue for many hours, which means they cannot cook regular meals for their children or invest time in alternative income-generation activities or savings schemes. Almost all interviewees and discussion participants recognised and greatly appreciated the reduction in travel and waiting time at water points.

This reiterates the need for careful thinking about the scale of planning of adaptation interventions. Manyara user committees who oversee the flood prevention channels pointed out that digging several other canals in strategic locations would have protected a much larger area from flooding. But this would have required greater funds and oversight at a level higher than the division, showing that strategic input from those thinking at water-basin level might be necessary for effective adaptation, particularly with regard water management and direction. Future studies under the learning framework may want to consider how central planning can effectively complement and support bottom-up investment, and how to actualise this in practice. The DCF pilot did engage PO-RALG in the proposal review process but did not use this overview to understand how it fit with existing policies or programmes in the wider Arusha region.

Where investments have less obvious links to adaptation-specific outcomes, it is in large part because at local level, where vulnerability to any kind of shocks is often high, it is hard to distinguish between development and climate investments. Although a livestock market such as the ones in Nanja or Monduli does not obviously build resilience, access to a functioning market allows pastoralists to de-stock in advance of a drought at reasonable prices or sell livestock to pay for children's education or health vaccinations. The same is true of many water sources, which respond to both development needs and climate threats, particularly where water infrastructures that are vital to livelihoods are scarce. Often, reducing an historic development deficit — by enabling greater security of basic needs such as water or the ability to practice local livelihoods without hinderance — is a major contributor to increased climate resilience.

However, there are also strong incentives for communities and government to consider broader development objectives in general over climate priorities specifically. In northern Tanzania, pastoralists face existential threats including the ongoing reduction and fragmentation of rangelands due to privatisation or a policy emphasis on conservation, chronic underinvestment in local infrastructure, invasive species spreading across grasslands and other threats. Collectively, these are more of a threat to sustainable livelihoods than climate change, which tends to exacerbate rather than drive these problems. It is not surprising that financially empowered community representatives find ways to address these more pressing constraints rather than focus on climate change specifically. But the presence of strategic criteria has forced communities to think expansively about their investments, generally addressing both development and climate challenges.

With little policy guidance or incentive to engage in climate action, existing development policy commitments can override climate-specific concerns for local government authorities, along with political incentives for doing so. The Minister for Water recently reiterated a commitment to ensure water is available within 400 metres of all households; government officials referenced this commitment in expressing their support for the DCF investments.⁴¹

⁴¹ Kimaro, H (19 January 2018). India to grant US\$500mil for Tanzania water projects. See <https://tinyurl.com/ya2u5w99>

6 Conclusion

The experience of the pilot demonstrates the great promise of the DCF mechanism. The approach has demonstrated the significant role communities can play in local government planning when they are effectively integrated into the process.

In one year, 35 investments responding directly to local priorities were planned, designed and implemented overseen by community members. Investments drew on local knowledge and community priorities, complete with plans for ongoing maintenance and sustainability. Many of these have demonstrated value for money, gained by continually engaging community representatives at each stage of the project cycle process. DvAPCs improved the planning process and design quality through ongoing monitoring and consultation with their constituent communities.

There is significant evidence of community ownership of the new projects, a necessary condition for sustainability in contexts where government does not have capacity to independently maintain all its assets and infrastructures. Communities have taken on user fee collection and maintenance tasks, although it remains to be seen how successful these will be in the long term.

There has also been significant national government buy-in. PO-RALG, the Ministry of Finance and the Vice President's Office have approved a learning framework that will guide future learning and inform a decision on whether to scale out the mechanism nationwide. In the meantime, there is strong support for a scale-out to another 15 districts including arid, coastal and agricultural areas. PO-RALG has expressed willingness to establish a project team to facilitate ongoing management of the scale-out, working with government training institutions to do so.

But several key issues must be addressed if the approach is to deliver truly transformative adaptation that addresses the root causes of vulnerability. The approach is not yet inclusive enough and future iterations must integrate new procedures that ensure recognition and concrete investment in the priorities of women and young people. To this end, IIED has initiated a project to identify women's and young people's priorities and gauge how well DCF investments have met them in a project funded by the Climate Justice Resilience Fund.

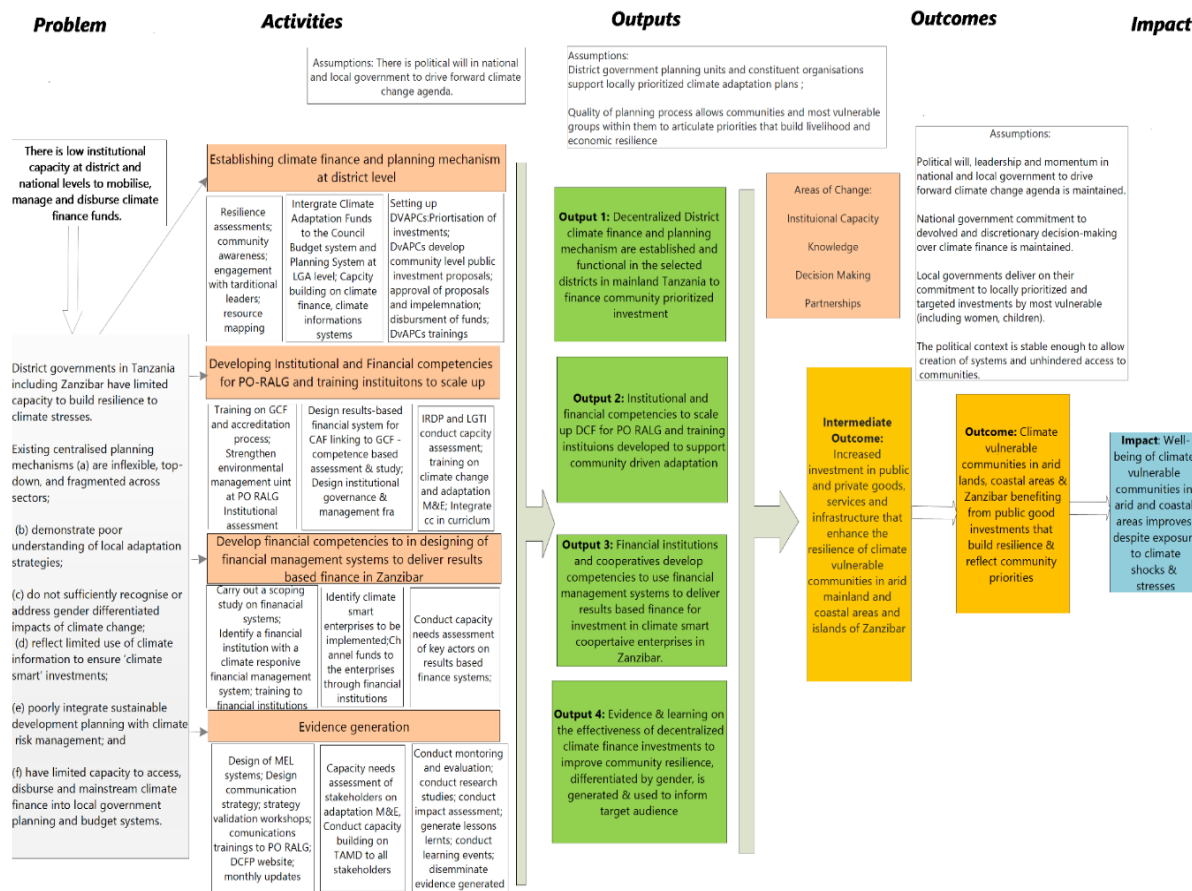
Future pilots must also make efforts to recognise the gap between communities' desire to fill the development deficit and ensuring their investments respond to future climate risk. This requires encouraging communities to think carefully about project placement and enabling technical staff to recognise 'no-regrets' strategies and how to climate-proof key assets and infrastructures during design and maintenance.

A range of potential partners can support this renewed effort, particularly in planning and providing technical support to scale out the approach. One of these is the UNCDF's LoCAL programme's PBCRG mechanism, which enables direct engagement with national government's public financial management systems and introduces a performance-based element to incentivise continued improvement (see Annex 2).

The immediate next step is securing finance to build on the learning from and successes of the pilot. PO-RALG is seeking accreditation as a national implementing entity for the GCF. Once accredited, it will be able to use existing inter-governmental financial transfers to channel finance, but the process will take some time. In the meantime, there is high-level willingness within national government to expand the pilot to another 15 districts for further testing.

Investing in the fiduciary capabilities of PO-RALG and target local government authorities and their capabilities to use resilience planning tools effectively and independently will further support the mainstreaming of the DCF approach. Such capacity building investments need to be coupled with additional financing for investments that enable communities to maintain momentum in planning their climate response in partnership with local governments.

Annex 1: Project theory of change



The theory of change identifies four outputs.

Output 1: Decentralised district climate finance and planning mechanisms are established and functional in the selected districts in mainland Tanzania to finance community prioritised investment. Achievement of this output hinges on strengthening local government authorities and building the capacity necessary to pilot an improved, climate-responsive planning mechanism at district level. Strengthening activities included training on climate change, resilience planning tools, M&E and building understanding of local livelihoods in their target areas. Resilience planning tools offer ways to improve O&OD.

Output 2: Institutional and financial competencies to scale up DCF for PO-RALG and training institutions are developed to support community driven adaptation. This included capacity building of PO-RALG staff to build knowledge on climate change and climate finance, enabling it to become a national implementing entity for the Green Climate Fund. The project also delivered training on climate change and TAMD to key staff within government training institutions IRDP and LGTI.

Output 3: Financial intuitions and cooperatives develop competencies to use financial management systems to deliver results-based finance for investment in climate-smart cooperative enterprises in Zanzibar. This output is not the focus of this paper.

Output 4: Evidence and learning on the effectiveness of DCF investments to improve community resilience, differentiated by gender is generated and used to inform target audiences. These outputs use the TAMD approach to gauge and learn from change.

Annex 2: The Performance-based climate resilient grant mechanism

The DCF Consortium has developed the DCF mechanism in Tanzania over several years and similar pilots are also taking place in Kenya, Mali and Senegal.⁴² Designed by PO-RALG, Tanzania's Ministry of Finance and the UNCDF's LoCAL programme, the DCF mechanism enables donors and other domestic sources to channel climate finance through the public financial management system to local government authorities, where communities can prioritise spending on public good climate-resilient investments. The mechanism we describe in this annex shows how it might function once integrated into the public financial management system. This is different from the mechanism we described in Section 2, which used an agent, Hakikazi Catalyst, to transfer funds to service providers and DvAPCs.

The DCF mechanism has four components:

1. The **PBCRG**, which is held at the discretion of local government authorities but prioritised in direct partnership with elected community representatives. If mainstreamed, the grant would form part of the LGDG, the main system of inter-governmental fiscal transfers from national to sub-national government.

The PBCRG is tied to a set of strategic and technical criteria and an investment menu, which provides guidance on the kinds of climate-resilient investments that can receive funding. This ensures that investments focus on climate adaptation rather than traditional development outcomes.

Districts must meet a set of minimum conditions to be eligible for the grant, to ensure basic fiduciary standards are maintained. Achievement against a set of performance measures that encourage greater participation, responsiveness to gender-specific priorities and dissemination of climate information can enable districts to receive larger PBCRGs in consequent years. But UKAid conditions concerning grants paid directly to government institutions means the performance-based element of the approach has not been operationalised.

2. **Institutional structures for managing the grant**, which include:

DvAPCs: These are elected committees of community representatives responsible for gathering community priorities and allocating the PBCRG to public good investments. Villages propose five candidates based on their trustworthiness and perceived ability to represent community priorities. Ward development committees then choose one male and one female representative to join the DvAPC.⁴³

⁴² For more information on the DCF approaches, see www.iied.org/how-devolved-climate-finance-can-deliver-climate-resilience-local-level

⁴³ In rural districts of Tanzania, village councils and assemblies represent the lowest tier of formal government. Villagers elect ward councillors to coordinate villages, serving on ward development committees to support local planning. There are three to five wards to a division, an administrative unit that reports to the political arm of the district authority via the district commissioner. There are typically three to four divisions in a district authority's jurisdiction.

The committees' main roles are identifying community priorities, developing and planning investments that build resilience, supervising construction and carrying out M&E work. They are registered community-based organisations and can handle money independently.

Local government authorities chose the division as the unit of representation to trial planning at a greater spatial scale than existing village-level government processes. This was in response to the nature of climate impacts and local livelihoods.

DAPCs: These consist of the district heads of department, the district planning officer, district executive director and two representatives from each DvAPC in the district. The DAPC reviews all proposals submitted by DvAPCs against the strategic criteria, suggesting improvements and ensuring proposals harmonise with existing government policy. If DvAPC proposals meet the strategic and technical criteria, the DAPC cannot refuse them. DAPCs are allocated 20% of the total PBCRG to make strategic investments that add value to those made by DvAPCs or that meet district climate priorities.

DAABs: Members are political leaders, including the chair of the council and the district regional commissioner. DAABs meet once or twice a year in an advisory capacity to the DAPC.

3. **Resilience planning tools**, which government staff use with communities to help them develop greater understanding of local livelihoods. IIED delivered training and supported training and delivery of these tools from 2014 until 2017. The tools include:
 - Resilience assessments, which help communities articulate the rationale behind their livelihood strategies.⁴⁴ In contrast with the government's existing participatory planning process O&OD, resilience assessments focus on the division, rather than the village, as a planning scale.
 - Participatory digital resource maps, which communities use to describe their local natural resources to government and to each other, including how they used them within a functioning livelihood system.⁴⁵
 - Improved CIS, which enable more strategic short and long-term decision making. Well disseminated climate information can inform community resilience planning decisions and short-term agricultural and livestock decisions.
4. **Monitoring, evaluation and learning (MEL)**, which is integrated into local government to ensure iterative learning and feedback for improvement after each funding round. The project used the TAMD approach to assess changes in local government's approach to climate risk and in community-defined adaptation and development indicators on the ground. TAMD relies on self-assessment scorecards completed by government and theories of change developed by communities to measure development outcomes.

In each district, funding follows a 70:20:10 allocation: the divisions prioritise 70% in consultation with communities; districts prioritise 20%; and 10% is divided across all DvAPCs and the DAPC to facilitate independent travel to meetings, organisation of events, supervision of investments and M&E.

⁴⁴ For a guide to resilience assessments, see Adaptation Consortium (2016) Resilience assessment toolkit.

⁴⁵ For a more detailed review of participatory digital resource mapping, see Greene, S and Hesse, C (2017) Participatory resource mapping: IIED and Rowley, T (2013) Participatory digital map-making in arid areas of Kenya and Tanzania, *Participatory Learning and Action (PLA)* 66.

Funding flows through the public financial management system as part of the LGDG, the main inter-governmental fiscal transfer. To facilitate this, the Ministry of Finance has created a project code, with Planning Commission approval, within the national budget accounting system to mainstream DCF funds and ensure they are on-budget and on-parliament.⁴⁶

Due to conditions on how funding can flow to government, the project channelled funds through an agent, Arusha-based NGO Hakikazi Catalyst. The agent acted on behalf of the districts, following a manual of procedures designed to mimic government regulations and systems as far as possible, to make it easier to incorporate the DCF financial systems into government operations in later phases. Each district employed a district coordinator, who responsible for coordinating district activities on the project and advising on the approach.

The first round of funding through the pilot DCF mechanism has delivered 35 investments across three districts.

⁴⁶ The PO-RALG minister specifically referenced the DCF project in his 2017 budget speech to parliament.

Annex 3: DCF Tanzania learning framework

VALUE FOR MONEY OF THE PBCRG MECHANISM

Key questions to establish VfM of DCF mechanism	Information to collect to establish VfM	Existing sources of information and data
<p>Reduce the costs of planning for the district government due to quicker decision making and implementation of project cycle, devolving responsibility to division-level committees?</p>	<p>Unit cost of consultations – reaching more people during consultation undertaken by DVAPC especially for arid districts.</p> <p>Unit cost of investments in public goods that build resilience. These could be investments in water development such as repair or construction of dams funded by PBCRG and the county/national government, or investments Livestock health facilities through the PBCRG and maintained/staffed by the district</p>	<p>Communities</p> <p>DVAPC and DAPC members</p> <p>DCF Consortium</p> <p>County partners</p>
<p>Supports bottom-up planning and meeting priority community needs: Identified project are real, address most pressing community priorities and reach many people.</p>	<p>Unit cost of investment per number of people benefiting (i.e. the reach of local public goods) for PBCRG and non-PBCRG investments; number of beneficiaries reached.</p> <p>Evidence of community investing their own resources in the implementation of PBCRG and non PBCRG investments.</p>	<p>District planners</p> <p>District executive directors</p> <p>District Planning and Learning Office</p> <p>Community development officer</p>
<p>Deliver cheaper investments without compromising quality (i.e. good VfM) due to division-level committee oversight of budget development and service provider implementation, in collaboration with district engineers?</p>	<p>Evidence of DVAPC and DAPC involvement in district processes such as annual budgeting and feedback.</p> <p>Evidence of district government investing resources in PBCRG mechanism, process and investments and mainstreaming PBCRG approach into other county systems (e.g. legislation, strategies, CIS & MEL plans).</p>	<p>Department heads – water, livestock, natural resources</p> <p>Project completion and audit reports</p> <p>Monitoring reports</p>
<p>Deliver investments with a higher completion rate due to better budgeting, oversight and monitoring of service provider work?</p>	<p>Division committee satisfaction (on a scale of 1 to 5) with each step of the project cycle process, the nature of support received from county technical staff in project proposal development, and the availability/amount of the operational fund.</p>	<p>Key informant interviews with service providers; retainers</p>

<p>Deliver more sustainable investments due to better technical quality, more appropriate technical features, higher community ownership?</p>	<p>Division committee satisfaction (on a scale of 1 to 5) with nature and level of training received in building their skills in proposal development, community consultation and accountability, financial management.</p> <p>District level support creating enabling environment for district level investments –how they directly contributed to success of division level investments</p> <p>Were investments financed the most pressing and supporting the dominant economy? (meeting the criteria).</p> <p>Reaching the most poor/vulnerable</p> <p>Completion rate of projects and linkage with availability of funds. Were projects completed within budget estimates?</p> <p>Measures in place to ensure sustainability at design and after implementation (maintenance and repairs)?</p> <p>Adherence to procurement procedures; checks and balances for Quality Assurance not undermined. Transparency and accountability that can be attributed to the PBCRG.</p>	<p>and repairs carried out during the withholding period</p> <p>Annual performance Assessments</p> <p>TAMD scorecards</p> <p>Focus group discussions</p> <p>Key informant interviews</p>
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APPROPRIATENESS AND INCLUSIVENESS OF THE PBCRG MECHANISM

Key questions to establish appropriateness and inclusiveness of PBCRG mechanism	Information to collect to establish appropriateness and inclusiveness	Existing sources of information and data
<p>Respond better to the priorities of most of the local population due to the composition/profile of the elected committee members (vetted against criteria), availability of a discretionary operational fund to cover costs of consultation and because of planning against a known budget ceiling?</p>	<p>DvAPC satisfaction with adequacy of their operational fund – were all cost categories included, were funds sufficient, etc.?</p> <p>Community satisfaction with division committee consultative process and prioritised investments under PBCRG versus those funded by O&OD; assessment of community assessment of the “benefits” and “costs” of inclusion, participation (e.g. wider empowerment, capacity to engage in devolution, etc.).</p> <p>Women and youth satisfaction with division committee consultative process and the degree to which their priorities reflected in PBCRG-funded investments versus typical LGDG investments; their assessment of the “benefits” and “costs” of inclusion, participation (e.g. wider empowerment, capacity to engage in devolution, etc.).</p>	<p>Communities</p> <p>DvAPC and DAPC members</p> <p>DCF Consortium members</p> <p>District partners</p> <p>District planners</p> <p>District planning and learning officer</p>
<p>Better consider the specific needs of women due to presence of women committee members, provisions written into operations manual to systemically incorporate women’s problems and availability of discretionary operational fund to cover costs of consultation?</p>	<p>Community satisfaction with way prioritised investments support their production and adaptive strategies in face of increasing climate variable and incidence of acute weather events.</p> <p>Degree to which women and other committee members felt they participated in division-level committee decision making.</p> <p>Those categories of the local population who felt they were excluded because of priority given to public goods that support the dominant economy on which most (not all) people depend (see funding criteria) – e.g. stockless households in pastoral areas.</p>	<p>Project completion and audit reports; key informant interviews with service providers; retainers and repairs carried out during the withholding period</p>
	<p>How users (differentiated by gender, production system) received CIS; how CIS changed decision-making and to what effect; accuracy and relevance of CIS products (seasonal forecasts, etc.); degree to which CIS tailored needs.</p> <p>Division committee satisfaction with each step of the project cycle process, the nature of support received from district technical staff in project proposal development, and the availability/amount of the operational fund.</p>	<p>Annual performance assessments</p> <p>TAMID scorecards</p>

<p>Better consider the specific needs of women due to presence of women committee members and availability of discretionary operational fund to cover costs of consultation?</p> <p>Better integrate climate variability, acute weather events and climate change into project design due to timely provision and use of CIS and findings from resilience assessments and resource mapping; equitable allocation across divisions with planning done at division and inter-division levels.</p> <p>Complemented, strengthened and added-value to O&OD priorities and investments.</p>	<p>Division committee satisfaction with nature and level of training received in building their skills in proposal development, community consultation and accountability, financial management.</p> <p>Division committee and district technical staff satisfaction with resilience planning tools introduced – CIS, participatory resource mapping, resilience assessments.</p> <p>District government satisfaction with PBCRG funded investments in complementing and adding value to O&OD priorities and investments.</p>	<p>Focus group discussions</p> <p>Key informant interviews</p>

Annex 4: Key documents reviewed

The research team will consolidate a series of documents to provide further justification and evidence for the findings of key informant interviews and group discussions, including consolidating existing learning materials such as:

- Greene, S (2015) Resilience building in Tanzania: learning from experiences of institutional strengthening, IIED. <http://pubs.iied.org/10129IIED/>
- Msangi, A, Rutabingwa, J , Kaiza, V and Allegretti, A (2014) Community and government: planning together for climate-resilient growth. IIED. <http://pubs.iied.org/10075IIED/>
- Rowley, J (2018) A report on two studies in Tanzanis for the IIED DCF project (not published)
- Baseline survey reports and data.
- DvAPC and DAPC meeting minutes.
- Cost tracker: an internal IIED document tracking spending on all aspects of the project.
- Narrative reports based on quarterly reports from IIED partners and submitted to DFID.
- Project cycle M&E templates.
- Project proposal documents submitted by DvAPCs and DAPCs for review from Monduli, Longido and Ngorongoro.
- Testimonials from community members developed by Tanzania Natural Resource Forum.

Decentralising Climate Finance Project (DCFP)

DCFP intends to enable climate finance to reach the most vulnerable communities and ensure that interventions that are undertaken are cost-effective, complement existing development finance, and in line with national policies.

To do so, it will build the capacity of existing institutions in Tanzania mainland and Zanzibar to scale out the project and access international climate finance.

Decentralised Climate Finance Project in Tanzania

Keep in touch

+255 768 100 246 info@dcfp.go.tz

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