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Finance for Resilience Building and Ecosystem-Based Adaptation in Kenya. A comparative study of local and national managed funds

John Nyangena, Clare Stott, Adano Wario

National Drought Management Authority — NDMA — Committed to ending drought emergencies
KIPPRA — The KENYA INSTITUTE for PUBLIC POLICY RESEARCH and ANALYSIS
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Abbreviations

ADA	Adaptation Consortium
ASALs	Arid and Semi-Arid Lands
CAF	County Adaptation Fund
CAPC	County Adaptation Planning Committee
CBOs	Community Based Organizations
CCCFs	County Climate Change Funds
CDI	Community Development Initiative
CDTF	Community Development Trust Fund
CEF	Community Environment Facility
CGA	County Government Act
CIDP	County Integrated Development Plan
CORDAID	Catholic Organisation for Relief and Development Aid
DDO	District Development Officer
DFID	Department for International Development
EbA	Ecosystem based Adaptation
EU	European Union
GCF	Green Climate Fund
GoK	Government of Kenya
ICAF	Isiolo County Adaptation Fund
ICCCF	Isiolo County Climate Change Fund
IIED	International Institute for Environment and Development
ISOPAD	Integrated Society on Poverty Alleviation and Development
MoDP	Ministry of Devolution and Planning
NDMA	National Drought Management Authority
NRM	Natural Resource Management
NGOs	Non-Governmental Organizations
PIC	Project Implementation Committee
PMC	Project Management Cycle
PMU	Project Management Unit
RAP	Resource Advocacy Programme
SSIs	Semi Structured Interviews
WAPC	Ward Adaptation Planning Committee

Summary

Since the establishment of the Green Climate Fund, research interest on funding modalities to deliver adaptation and development benefits to the local level has grown exponentially. A key question is how climate change funding can be effectively channelled to support adaptation, including ecosystem-based adaptation initiatives, in natural resource dependent dryland environments. This paper compares the strengths and weaknesses between a locally and a nationally managed fund to supporting development and climate change initiatives in Isiolo County, Kenya. Using two case studies of the Isiolo County Climate Change Fund (ICCCF) and the Community Development Trust Fund (CDTF), this working paper compares their degree of alignment to development strategies, access to funds by beneficiaries, accountability and transparency measures, the benefits of financial investments, opportunities and challenges.

The research described here forms part of the International Climate Initiative (IKI) project 'Ecosystem-based approaches to adaptation (EbA): strengthening the evidence and informing policy'. Globally, EbA initiatives to date have consisted largely of standalone projects, but they need to be implemented at scale in order to reap the social and environmental benefits needed in a changing climate. The two funding models described show how EbA is or could be mainstreamed into national and county level government planning in Kenya, with finances made available accordingly. It thus provides key lessons on how EbA can be implemented and funded at scale, whilst retaining community knowledge and adaptation needs at its core. Such lessons are relevant for decision makers and planners who would like to know how to implement and fund EbA at scale.

The paper is based on data collected from seven beneficiary projects in Garba Tulla and Kinna Wards, using focus group discussion and key informant interviews. The results show that although the projects are overly sectoral in their planning, both funding approaches strive to support local development and adaptation priorities as set out in the County Integrated Development Plan (CIDP) through greater involvement of local communities. Both funding approaches have significant potential in terms of scaling up support for adaptation, because they are participatory, cross-sectoral (especially the nationally managed fund), compatible with the governance and institutional structures that manage dryland ecosystems, and can operate at scale. The locally managed fund (i.e. ICCCF) responded better to community needs and had a shorter time period between proposal development and fund disbursement compared to the CDTF. Both funding approaches are implemented through informal governance structures parallel to but complementing the devolved county administration. Clear accountability and transparency measures existed in both approaches. Overall, ICCCF had enhanced targeting of community needs through resilience assessment studies, and shorter turn-around time between proposal development and fund disbursement compared to CDTF. In addition, the results indicate that project monitoring and supervision is more effective when funds are managed locally. CDTF had higher capitalization with average project budgets of more than tenfold that of ICCCF. It emerged that CDTF would potentially benefit from a pool of skills available at national level and was better placed to support initiatives stretching beyond a County boundary, which may work better in the context of management at the broader ecosystem level.

Within the nature of Kenya's devolved system, current funding approaches create parallel processes and potential sources of conflicts/duplication of functions. However, these challenges are being addressed under ICCCF thanks to the Climate Change Bill and the Natural Resources Management Bill that are currently before the county assembly. For local adaptation and development benefits to be realized, it is recommended that funding for public goods should embrace ecosystem-based planning and management, be more flexible in supporting community development priorities, strengthen sustainability criteria, be integrated into county planning and budgeting process, and build the capacity of those involved in the entire project cycle. This paper shows that in order for the local communities to benefit from resilience-building interventions; it is not only the amount of funding that matters but also the approach used to deliver them.

1. Introduction

In 2010, Kenya adopted a new Constitution which established a devolved system of government. Article 174 of the Constitution states the objectives of devolution as being to enhance the participation of the people in decision-making, to protect the interests of minorities and marginalised communities and to promote social and economic development. County governments are responsible for thirteen functions defined in the Fourth Schedule including agriculture, health services, county transport, trade, and implementation of specific policies in environment and natural resources as well as disaster management. Article 215 establishes the Commission on Revenue Allocation (CRA) with a mandate to recommend criteria for equitable sharing of public funds between the national and county governments; and among the county governments. To support devolution, several legislations exist to amplify these objectives notably the County Government Act 2012, Public Finance Management (PFM) Act 2012, Intergovernmental Relations Act 2012 and the Coordination of the National Government Act 2013.

The County Government Act outlines the county planning process and defines lower decentralized units at sub-county, ward and village level. According to the Act, Counties are required to prepare a five year County Integrated Development Plans (CIDPs) in accordance with the devolved functions and other relevant national policies. The CIDP is an important instrument for county budgeting and expenditure. Counties should ensure that "county planning process shall provide for citizen participation", which shall be done in a process that "involves meaningful engagement of citizens" [1].

The PFM Act, on its part, is the principle law guiding budgetary process both at national and county level. Section 125 outlines stages in County government budget process including (i) formulation of a five year County Integrated Development Plan, (ii) Development of Annual Development Plan, (iii) formulation of a County Review Budget Outlook Paper (CRBOP), (iv) preparation of budget estimate of the county government's revenues and expenditures through Medium Term Expenditure Framework (MTEF), (v) preparation of County Fiscal Strategy Paper (CFSP) and (vi) preparation of itemized budget and approving by the County Assembly. The Act is silent on budgeting at other decentralized units, implying that planning and budgeting are coordinated at the county level, even though development priorities vary within the county. As a remedy, many county governments earmark a certain portion of their budget annually to support projects at lower units, which is approved by the County Assembly alongside the normal County budget.

As is common in many developing countries, government investments are complimented by development partners and non-state partners operating at community level to address socio-economic development challenges[2]. Traditional funding approaches in support of community development were mainly managed at the national level with disbursements made to various locations of the county. The National Government Constituency Development Fund (NGCDF) is one such funds operated at the national level. The fund consist of monies not less than 2.5% of all the national government's share of revenue and aim at promoting community participation in the determination and implementation of development projects at the constituency level[3]. Besides public supported funds, a few funds are capitalized through externally mobilized resources and operate off-budget. A good example is the Community Development Trust Fund (CDTF), established in 1997 as a joint partnership between the government and the EU.

Buoyed by the devolved system of government, locally managed funds have emerged motivated by the urgency for greater impact at community level. International Institute for Environment and Development is piloting one such approach in Isiolo County. The Isiolo County Climate Change Fund (ICCCF) (formerly known as the Isiolo County Adaptation Fund) was established in 2013 with the aim of building climate resilience of vulnerable communities at the ecosystem level. The fund is managed by committees operating at the County and Wards levels.

Both the CDTF and ICCCF respond to community needs at the local level, but have had varying degrees of impact: ICCCF directly targets climate resilient development, the CDTF support community development – which itself supports resilience. Planning, financing, implementation and monitoring procedures are key to their impact. This study adopted a project cycles approach to compare the pros and cons between the two funding approaches. The specific objectives of the study were to (i) assess the degree of alignment of the Isiolo CCCF (ICCCF) and the CDTF to county and national level climate change and development strategies; (ii) assess the degree of accessibility of funds by beneficiaries from ICCCF and the CDTF; (iii) assess the extent to which accountability and transparency principles have been implemented by the ICCCF and the CDTF, including the role of beneficiary communities in decision-making; (iv) compare the benefits of financial investments from the two funding options to the most vulnerable groups, including gender and youth; (v) assess the benefits of financial investment from the ICCCF and the CDTF for ecosystem-based adaptation, climate resilience, wellbeing and sustainability, and (vi) identify challenges facing each funding approach.

With an increasing amount of funding being made available for climate change adaptation, from international mechanisms such as the Green Climate Fund, bilateral donors and indeed national budgets, questions are being asked about how best to fund adaptation. Because climate change affects the poorest and most vulnerable, it is important that any adaptation efforts target these people. And because these groups are so dependent on natural resources in the arid and semi-arid lands of Kenya, such approaches must also ensure that ecosystems and the services they provide can continue to support local livelihoods. The findings of this study provide insights on adaptation funding, including ecosystem-based adaptation towards building climate resilience in Kenya's drylands.

2. Literature Review

2.1 Devolved public finance in Kenya

In Kenya, there is disparity between community and formal government planning systems. This undermines local people's capacity to adapt successfully to increasing climatic variability. Major weaknesses of the centralized planning system include poor communication, inflexibility, poor coordination and poor use of climate information. The government is making progress towards decentralisation and, as a part of that, devolving financial allocations and management responsibilities. The flow of public finance is from national to county levels, with provisions of equitable sharing of revenue across counties.

Article 203(2) of the Constitution stipulates that the equitable share of revenue allocated to county governments shall be not less than 15% of all revenue collected by the national government, and to be equitably shared among the county governments (Art. 216(1) (b)). The Commission on Revenue Allocation (CRA) has a criteria to make recommendations concerning the basis for equitable share[1] of revenue raised by the national government between levels of government and among the County governments. Revenue generated by county governments from own sources is paid into the County Revenue Fund (CRF). Withdrawals from the CRF are made upon approval by the Controller of Budget supported by an appropriation of County Assembly legislation[4]. Counties undertake approximately 19% of all public expenditure. 89% of this is financed through counties approved budget from national transfers and 11% from own revenue source. All funding is disbursed through grants, though loans are to be introduced. Unspent finance remaining from one year may be carried over to the next. County expenditure has focused on infrastructural projects, alongside spending in agriculture, economic affairs, transport, health, environmental protection and other services. Diverse development activities are apparent between counties, reflecting their differing development priorities and approaches.

According to the Kenya Economic Review (2016) fiscal decentralisation is hampered by a number of factors, among them weak legislative and institutional framework, unclear mechanism for county to generate own revenue, weakness in inter-governmental fiscal transfer system, and non-disbursement to decentralized units (no legal framework to extend budget allocations to beyond the county level lower units closer to the communities).

2.2 Modalities for devolving climate finance

There are different modalities for devolving climate finance, which most often require upfront agreement on the activities, policy reforms, and/or outcomes that are being funded. For example, under 'programme funding' finances are allocated for particular activities to be implemented by a specific agency with the capacity to manage the funds effectively, which may determine the level to which funds are devolved[5]. Large infrastructure investments are likely to be a national function, while local investments are better implemented at devolved unit or community level organisations. For 'Quantity-Performance (QP) funding', funding relies on the delivery of specific and measurable outcomes, without needing to define the process of achieving them. This may be more suited to projects that are easier to monitor and measure.

The Green Climate Fund (GCF) structure aims to devolve finance through programme-based funding and enhanced direct access to climate finance at multiple levels. The decision to increase direct access for developing countries can further empower national and sub-national level institutions to implement locally appropriate responses to climate change. To date, countries have accessed GCF finance either indirectly through Multi-lateral Development Banks (MDBs) and UN agencies or directly through

[1]The current formula applied by CRA designates 45% of the county allocation to population; 25% to basic equal share; 20% to poverty index; 8% to land and 2% to fiscal responsibility (KIPPRA, 2016).

accredited National, Regional and Sub-National Implementing Entities[5]. Enhanced direct access of climate finance means that finance is better integrated into a country's finance management system to help mainstream climate activities and strengthen in-country capacity. This approach increases the flexibility of countries to prioritise spending according to prevailing circumstances, enhanced country ownership and strengthened institutions. Such benefits increase the potential for externally financed activities to have greater impact and be more sustainable. Concerns about direct access include potential for negative effects on contribution levels by recipient institutions; the sequencing of activities such that capacity should be built before large funds are devolved, that funding should be phased and that direct access should be evaluated before enhanced direct access is introduced; issues for countries unable to access funds; and levels of ambition in recipient countries.

2.3 Policy support for development funding in Kenya

Adoption of a new Constitution in 2010 provided frameworks for devolving public resources. The Constitution creates 47 county governments responsible for policy management, administration and local service delivery for county-level agriculture, health, trade, roads, county planning and other functions[7]. County governments manage social and economic development within their jurisdiction according to local priorities, budgeted through participatory planning. The financing structure for devolution is based on principles of openness, accountability, public participation, equity in revenue generation and equitable sharing, promotion of development and transparent and equitable PFM system. Revenue is shared with counties in consideration of respective poverty, population density, land and fiscal responsibility. An important principle of devolution is citizen participation. Article 174(c) provides that the object of devolution is to: "enhance the participation of people in the exercise of the powers of the State and in making decisions affecting them."

Vision 2030 is Kenya's long-term development blue print that aims to transform the country into a middle income country. The Vision is operationalized through a five year Medium Term Plans (MTP). The Second MTP (2013-2017) prioritises economic, social and sectoral priorities, and governance and PFM reforms. It recognizes the critical role of County governments in planning and implementation of projects and programmes at the county level.

The Public Financial Management Act (2012) controls public spending and improves the quality of public expenditure towards transparency, cost-efficiency, improved public service delivery and accountability. Funds are released to counties based on CIDP priorities.

At the county level, Isiolo's CIDP (2013-2017) envisions "a developed, just cohesive county where all enjoy high quality of life", with the mission "To improve livelihoods of Isiolo people through participatory engagement and creating an enabling environment for mobilization and sustainable utilization of available resources". The county government intends to achieve their vision through goals in infrastructure development, security, improved livelihoods, public participation and basic services. Sustainable and equitable access to resources and services are central to these goals. The CIDP specifies policies, programmes, projects and stakeholder responsibilities for achieving these goals. It identifies climate change as a cross-cutting issue that will be included in the county budget. Resilience measures include mitigating the impacts of drought, adapting to flood, adaptation strategies for water-borne and vector-borne diseases and adaptation strategies for loss of forests and wetland ecosystems.

Mitigation measures prioritise rehabilitation of degraded lands through afforestation programmes, natural production of livestock fodder and traditional, low impact and adaptable grazing patterns. The County Government will use Early Warning Systems, awareness raising, renewable energy technologies and environmental management to support mitigation and adaptation activities and lessen climate impacts. The Planning Department will undertake country level M&E of climate change effects and adaptation. Release of funds to county government is contingent upon their formulation of the CIPD. However, the Isiolo CIDP recognises challenges in accessing funds for implementing climate-related activities but acknowledges financial potential, through integrating adaptation in the budget, engaging with the private sector and devolving resources to local levels. The county plans to fund development projects through government Capital Development Grants; local revenue generation; non-state partnerships; development grants and loans; trade and tourism revenue; private investments and light industries; public private partnerships; government loans and grants; development partner grants; and funds channelled through NGOs. Finance from national government, development partners and local revenue will be allocated to projects and programmes that enhance county economy, poverty alleviation, employment, public participation and sustainability. The CIDP highlights the programmes and projects to be implemented by the Isiolo County Government, the private sector, and those planned for implementation in partnership with the National Government, Development Partners, NGOs, and the private sector (PPPs).

The County Public Participation Guidelines have been developed to strengthen democracy and governance, increase accountability, inclusivity, ownership and legitimise the various processes of implementing devolution. These guidelines interpret Public Participation as broadly encompassing an interactive process between state and non-state actors of public communication and access to information, capacity building and actual engagement in development processes. Under these guidelines, county governments are required to create mechanisms for community participation, and build capacity among communities for their effective participation. Participation in county governance is open to all members irrespective of age, race, colour, gender or political affiliation.

2.4 Overview of Isiolo County Climate Change Fund and Community Development Trust Fund

The ICCCF is a devolved financing mechanism for local level adaptation through public good investments that are designed to enhance climate resilience[8]. ICCCF enable shared discussion, learning and problem-solving among community level stakeholders. The approach emphasises 'landscape-level planning' for integrated adaptation outcomes across counties, rather than within administrative boundaries. Target beneficiaries include local communities, local government and local service providers, who can benefit respectively from enhanced development and resilience, greater empowerment and autonomy and increased economic opportunities. ICCCF is managed by publically appointed Ward Adaptation Planning Committees (WAPCs), with County Adaptation Planning Committees (CAPCs) providing technical support[9]. The first phase of the work in Isiolo was funded by the United Kingdom's Department for International Development (DFID), with additional funding from the Catholic Organisation for Relief and Development Aid (CORDAID). Projects are implemented at ward level, based on specific community needs, and at county level, where the investment benefits the whole county rather than specific wards. Projects focus on water resource investments, customary resource governance institutions and livestock veterinary facilities at ward level; and a livestock strategy, community radio and development of a Natural Resource Bill at county level. Success in the pilot phase of the ICCCF prompted DFID to award a further GBP 6.5 million accountable grant for 2013-2016 to expand ICCCF operations to other counties in Kenya. The budget for individual projects ranged between Ksh. 2 and 3 million[2].

The fund is being mainstreamed into county planning through a Climate Change Fund Bill currently in the County Assembly. The Bill vests the overall governance of the fund in a Board at the County level comprising of nine Directors. It also establishes the County Planning Committee as a technical committee to the fund, and a Ward Planning Committee in each Ward to coordinate fund activities at the ward

[2]Average exchange rate 1GBP=KSH 133

level. The Ward Planning Committees comprises a maximum of 11 people selected by the communities based on their perceived development history. The Bill sets out nine requirements for funding projects; relevance, assessment of risks, gender and community cohesion, intervention benefits, demonstrate learning and knowledge management, includes sustainability and fiduciary management of the funds.

Like other public funds, the ICCCF will mobilize resources from the county budgets, national climate change funds or donors and other international financing mechanisms. Precisely, section 18 of the bill requires the County Assembly to annually allocate 2% of the development expenditure to the ICCCF. It can also receive funds from grants and loans; Public Benefit Organizations; fees and charges from climate change activities; and other grants and donations. With a bias towards adaptation, 70% of the CCCF is earmarked to finance ward-level determined investments, 20% to county-level investments and 10% for the administrative costs. As a pilot project, ICCCF is funded with seed money from DFID with IIED acting as the agent for the County. Fiduciary standards and safeguards are described in the ICCCF procedures manual.

CDTF is one of the many nationally managed funds in Kenya. It started as a joint social development programme between the Government of Kenya and the European Union (EU), under the Ministry of Devolution and Planning. It was established through Legal Notice No. 3030 of 1996 but later repealed through legal notice No. 172 of 2007 to allow more donors contribute into the fund. Its design was meant to facilitate the Government of Kenya's decentralized agenda, especially improved access to social and economic infrastructure[10]. CDTF supported sustainable community-based development projects focusing on vulnerable groups and environment management. Projects were funded in three core areas: social development, environmental sustainability and capacity building.

The programme had two components: the Community Development Initiatives (CDI) and the Community Environment Facility (CEF). The purpose of CDI was to support communities to implement socio-economic development projects aimed at reducing poverty and improving good governance. On the other hand, CEF targeted community projects on poverty reduction through improved livelihood systems and the conservation of natural resources at the community level. CDFT support was demand-driven and integrated projects identification through a Call for Proposals. CDI calls focused on assessment and prioritization of community needs for basic socio-economic infrastructure in health, education, water and sanitation, economic infrastructure, livestock and animal health, and agriculture[11]. CEF component calls prioritized interrelated activities covering communities living in or utilizing environmentally important areas, such as water-towers, and biodiversity rich areas.

The overall responsibility of managing CDTF rested with the Board of Trustee (BoT) comprising of representatives from Treasury, EU, Royal Danish Embassy (RDE), NGO Council, Ministries of Devolution and Planning, Local Government, Environment and Natural Resources, Special Programmes, Kenya Wildlife Service (KWS) and Kenya One World Link Forum (an NGO representing civil society organizations). The membership remained the same even after devolution in 2013.

Funded proposals emanated for existing Community Based Organizations, who were required to establish a Project Implementation Units (PIUs) to deliver projects. PIUs received funds directly from CDTF and were able to contract service providers to implement project on their behalf.

3. Research Approach

3.1. Conceptual framework

The study adopted a project management cycle (PMC) framework to guide the logical thinking in assessing the flow of finances in the ICCCF and CDFT. PMC conceptualizes three levels of project management, namely; governance, management and project delivery (Figure 3.1). Governance is the supreme organ where policy decisions about the project are made. It determines criteria and guidelines on generally how the project is to be funded and disbursements are made. Management is the middle level responsible for strategic decision on the fund, ensuring establishment of and act as interface between the project delivery and governance. Project delivery is the lowest level where the project is actually conceived and implemented.

In the context of this study, governance level represents the interface between the County Adaptation Planning Committee (CAPC) and IIED for the case of ICCCF, and CDTF headquarters for the case of CDTF. Management level is CAPC for ICCCF and County Government department for CDTF, and sought to capture the functions and operations of these institutions. Finally, WAPC and CBO/PIUs are the project delivery for ICCCF and CDTF, respectively.

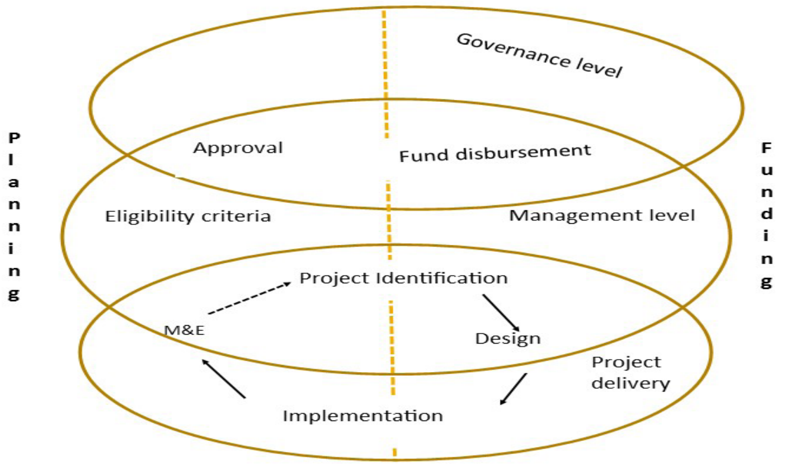


Figure 1: Conceptual framework for analyzing project financial flow

In this study, project delivery level consists of four stages, representing project identification, design, implementation, monitoring and evaluation (M&E). Identification assesses how projects are identified and aligned to relevant sector plans. Design covers the proposal development and budgets, and approval, while implementation examines project financing and the conversion of inputs into output. M&E is concerned with how to track the delivery of outputs and benefits and how these are distributed to various target beneficiaries, including the marginalized and vulnerable groups. Further, M&E system enables gathering of information to assess how project benefits impact the ecosystems.

3.2 Research design

This was a qualitative research meant to elicit opinions, views, and experiences on ICCCF and CDTF funding mechanism. Data collection involved desk based research and field research in Isiolo County.

3.2.1 Sample selection approach

The research was undertaken in Garba Tula sub-county, and concentrated in Kinna and Garba Tula wards. These wards were selected purposively[2] because they both had ICCCF and CDTF projects, and therefore enabled comparative research for the two funding approaches under similar geophysical conditions. Projects were sampled based on their relevance to the central research questions that is ensuring they had components of development and resilience and ecosystem based adaptation. This was particularly to guide the selection of CDTF projects, for which the scope is on community development, as opposed to ICCCF projects that had focus on climate adaptation. Although there are several nationally managed funds in Kenya, CDTF was selected for this study because it had implemented community projects in Isiolo County. In particular, phase 4 focused on climate adaptation, similar to ICCCF.

Sampling was also determined by practical considerations such as time, resources and scope of the study; and logistical constraints such as travel distance and accessibility. Respondents who had participated in the funds were purposively[3] sampled because they were believed to be knowledgeable about these funds. In addition, it was assumed that people who were involved in the project activities shared crucial similarities with respect to the project planning and funding. At the governance and management level, informants were sampled based on participation in the funds. At the project delivery, the researcher sought the help of key informants drawn from Adaptation Consortium (ADA) to select the projects and informants to be included in the study. The key informants helped map out ICCCF and CDTF activities in the county to guide sampling of the wards. After the wards were sampled, the projects were selected following this process. The researcher first selected a CDFT project before asking the key informants to name all projects implemented by ICCCF in the same sector, from which the researcher randomly selected one. Seven projects, (4 ICCCF and 3 CDTF) were sampled. The ICCCF projects were Bibi Water pan, Boji livestock facility, Kinna natural resource management and Garba Tula natural resource management while CDTF projects were Malika bridge, Duse water pan and Boji veterinary drug store (see annex 1 for list of sampled projects). A similar procedure was used to sample individuals for the study with additional criteria of respondent's availability, willingness to participate and ability to communicate experiences in a coherent and reflective manner. Having criteria beforehand is meant to minimize sample selection bias by the key informants, with aim of improving authenticity of data, as well as the overall quality and rigour of the research. The sampling process yielded a total of 19 informants across the three levels distributed as follows; governance (3), Management (5) and project delivery (11). Of the 11 project delivery informants, seven group interviews were conducted with beneficiaries of ICCCF and CDFT supported projects. Each group interview comprised of about 6 participants and included men, women and youth, wherever possible, to elicit a comprehensive indication of community experiences across gender and generation.

3.2.2 Data collection techniques

In-depth individual interviews and group interviews methodologies were used to elicit data from respondents. In-depth interviews with informants sought to obtain general information on the national and county context and about the funds. County level interviews captured issues of mainstreaming climate into county priorities, approval process, and views on sustainability. Ward level interviews explored institutions aspects, and modalities for accessing funds under each fund. The bulk of the data was collected through group interviews with project beneficiaries, based on their engagement in the fund activities, and therefore knowledge about the funds.

2. Random sampling was not feasible in the context of the study because of the high dispersal nature of the projects and limited resources available.

3. Purposive sampling is an effective technique commonly used to identify information rich cases to address the problem of limited resources (Patton, 2002). Further, it enables in-depth study of a subgroup, reduce variations, simplify analysis and facilitate group interviews (Palinkas et al., 2013).

Group interviews were used as an exploratory technique and on average comprised 6 beneficiaries with an interviewer, a note-taker and translator. In total, 7 group interviews were conducted; 4 with respect to ICCCF projects (Bibi water pan, Boji livestock facility, Kinna natural resource management, Garba Tula natural resource management) and 3 for CDTF funded projects (Malka bridge, Duse water pan and Boji veterinary drug store) (see Annex 1 for details). The group interviews were based on their knowledge, gender, and age to capture diverse views and opinions of the beneficiaries.

Keeping interview group small was meant to give everyone the opportunity to participate and express their views and opinions. All group interviews followed similar structure for ease of comparison. The interviewer obtained data while listening and encouraging each member to speak and ensured a relaxed and friendly atmosphere prevailed where participants interacted openly in engaging discussion with minimum interruption.

Group interview session at Boji. Photo: John Nyagena

In both individual and group interviews, semi structured interviews (SSI) were used to elicit data with appropriate probing by the researchers. The interview questions covered five areas relating to the research objective: planning, implementation, costs, benefits and challenges. Interviews were conducted across different levels and funds in order to triangulate and verify the information. While SSI delved deeper into social and personal experiences, group interviews focused on wider range of experiences with participants sharing their knowledge and opinions of the two funding approaches. The questions were carefully designed to avoid asking leading questions which could compromise research quality. Data saturation was deemed to have been reached when no further new data was forthcoming from the informants.

All interviews were voice recorded for ease of reference during analysis. The choice of qualitative data collection techniques was premised on the fact that most of the issues under investigation could not have been anticipated, and therefore not possible to capture using a structured method of data collection.

The research team comprised two researchers and one to two research assistants at each interview. The research assistants organised the interview sessions and helped in translations. Most of the interviews were conducted in English, with translations between English and Kiswahili or Boran. Researchers explained objectives of the research and the intended use of the results before commencing interviews. Field work was conducted for two weeks in the months of August and September, 2016.

3.2.3 Data Analysis

Once the in-depth and group interviews were completed, audio recorded data was transcribed to Microsoft Word, coded and organized into themes in Microsoft Excel for purposes of analysis. Group interviews were treated as a single response. At the same time, researchers read the field notes over and over again until they were deeply engrossed into the data, highlighting commonalities in the responses. The researchers discussed and agreed on the emerging themes before comparing the findings within and among the transcription on the research themes. Verbatim quotes taken during the field work were identified to elaborate the themes. Information on each research theme was obtained from ICCCF and CDTF to enable interpretation of the basis upon which inferences were drawn. The data was triangulated with secondary sources for purposes of validity. Additional inputs and comments were obtained from participants in a validation workshop held in Nairobi in November, 2016.

3.3 Research limitations

There were a number of limitations to the research, which were considered throughout the paper. These limitations mean that the study findings are implied rather than certain.

1. Time and scope: Researchers had a limited time to conduct the field work. This limited the distance that could be covered to examine the operations of the ICCCF throughout Isiolo County, i.e. outside the boundaries of Kinna and Garba Tula wards.
2. Information and time constrained researchers' opportunity to determine the quantitative benefits arising from fund investments, the number of beneficiaries, and therefore establishing the value for money. Instead, the team assessed perceived benefits of the funds to the local communities.
3. Language barrier: Translation between English, Kiswahili and Boran throughout the interviews means that some information was likely lost. Researchers took steps to limit this through repetition and clarification of responses and careful transcription of audio recordings.
4. Access to CDTF information. Mid-way into the research, CDTF programme came to an end. Both the office and website were closed down making it difficult to access information at the governance level. As a result, researchers relied on available literature and former CDTF employees.

4. Study Findings

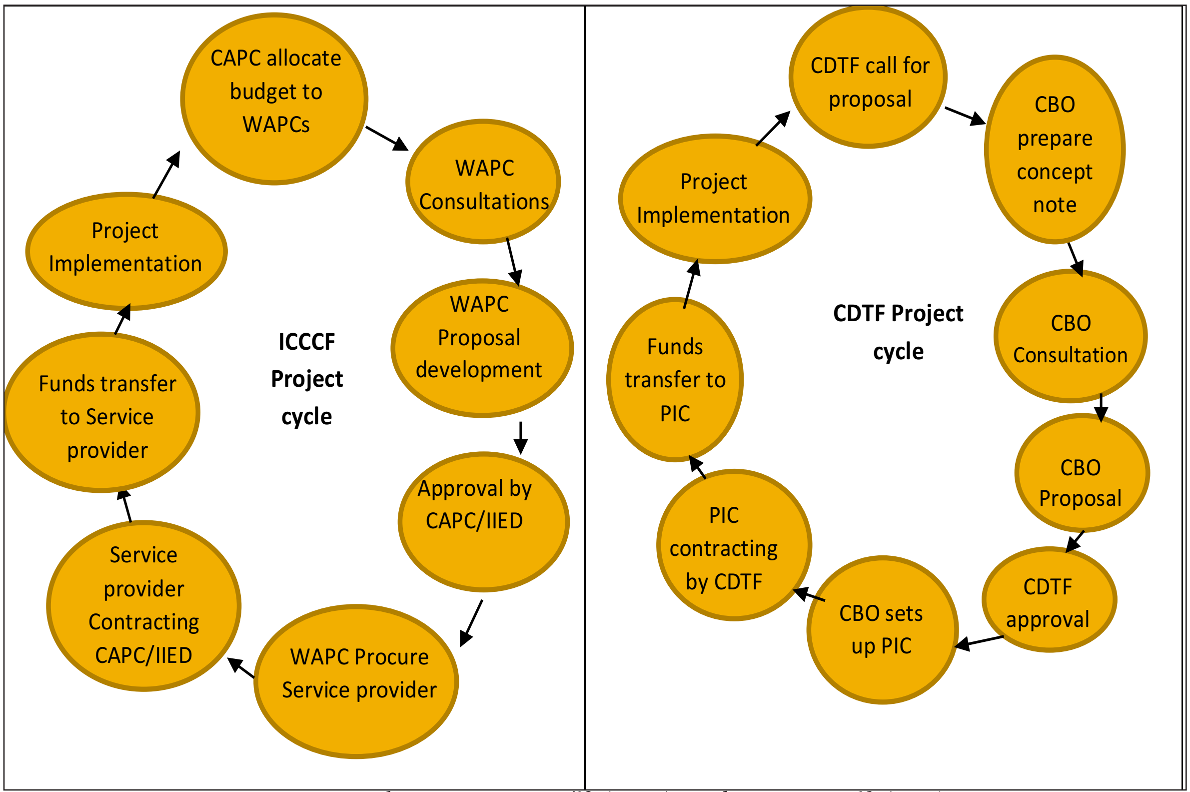
4.1 Fund Design

Fund design and implementation determine the accessibility of the fund to local communities and the level of transparency and accountability in its procedures. There are similarities and differences between the two funds in planning and management processes, delivery modalities, implementation approaches and reporting requirements. Both funds target multi-stakeholder participation. The level of community participation is central to the effective planning and implementation of the funds. In addition, comprehensive participation can ensure effective transparency and accountability of financial transactions.

The ICCCF was designed to enhance participatory development, address climate risk and ensure viability and sustainability through involving technical and government support. Publicly appointed WAPCs and CAPCs manage the fund. CAPCs consist of representatives from ward committees, local government and other local stakeholders. These different stakeholders come together to conduct participatory livelihood and local economy resilience self-assessments. WAPCs use assessment outcomes to strategize and prioritise adaptation investments. Priority projects are submitted to CAPC in the form of project proposals in compliance with predetermined criteria. Once the CAPC approves the project, the WAPCs invite bids from service providers and sign a contract with successful bidder on phased payments. IIED transfers funds directly to the service provider, albeit on an interim basis, awaiting the enactment of the County Climate Change Fund (CCCF) Act. The Bill currently being discussed at the County Assembly proposes that the CCCF is overseen by a County Climate Change Fund Board but administered by a public administrator. It further institutionalizes the County Climate Planning Committee and the Ward Planning Committee; the former dominated by county government staff, the latter by local communities. Section 17 of the Bill establishes a County Climate Change Fund to be capitalized through multiple sources including monies appropriated by the County Assembly equivalent to 2% of the annual county development expenditure, grants from national climate fund, internal flows, contributions from public benefits organizations and levies on climate finance activities.

In both funds, beneficiaries are required to develop a project proposal along set criteria. Proposals are submitted for evaluation before funds are released. CDTF proposal follows eight stages from concept note preparation by the CBO to release of funds to the PIC. The process takes up to 9 months. ICCCF proposal go through eight stages and take about five months (Figure 1.1). ICCCF transparency measures ensure that the funds allocated to the project are made public and WAPC are involved in selecting the service provider, as well as in approving payment. In the case of CDTF, the CBO determined members of the PIC, including the chairperson and accountant, without community involvement.

Figure 2: Schematic presentation of the stages of ICCCF and CDTF project cycle



Source: Isiolo County, 2014[12] (p.19) and EU, 2012[13] (p. 3)

CDTF project cycle outlines the roles and responsibilities at different levels. The Board of Trustee (BoT) is responsible for the overall management of the fund. The Programme Coordinator and other members of the Programme Management Unit (PMU) manage and supervise daily activities. Community members guide and take responsibility for key interventions. Publicly appointed Project Implementation Committees (PICs) implement CDI projects. They are responsible for managing finance, mobilising resources voicing community interests and information management including reporting to donors and CDTF. The climate change theme prioritises climate change and alternative rural renewable energy programmes. CDTF used two evaluation criteria; CBOs eligibility and proposed project criteria. Beneficiary CBOs are required to be non-profit making; formally registered in Kenya; directly responsible for the preparation and management of the project with their partner, but not acting as an intermediary, and must have been in operation for 3 years implementing activities similar to those of the call (see Table 4.1). The CBOs are also required to clearly demonstrate their ability to meet 10% contribution of the total project cost.

The mode of disseminating information about the CDTF call was not inclusive as guidelines were accessed at the CDTF offices, the District Development Offices (DDO) or the CDTF website, all of which are not widely accessible. CDTF supported projects addressing community needs and assumed beneficiaries were poor and vulnerable. However, the risk of elite capture was high because of their greater access to information and capacity to develop bankable proposals (DAI, 2016).

Table 4.1 Comparison of ICCCF and CDTF project evaluation criteria

ICCCF project criteria	CTDF project criteria
1. Must benefit many people.	1.Proponents must have adequate financial and operational capacity
2. Must support the economy, livelihoods or important services on which many people depend	2.Must be relevant to the objectives of the call
3. Must be relevant to building resilience to climate change.	3. Must be consistent, comprehensive, coherent and feasible
4. Must encourage harmony; build relations, understanding and trust.	4. Must be sustainable financially, institutionally and environmentally
5. Must have been developed after consultation with all potential stakeholders.	5. Be effective and efficient
6. Must be viable, achievable and sustainable.	
7.Must be cost effective and give value for money	

4.2 Policy alignment of the two funding approaches

The ICCCF and CDTF projects are in line with objectives of national and county plans and policy, including those for climate change (see Table 4.2). As a county-tailored fund, the ICCCF is closely aligned with county objectives, and more particularly targets climate resilience objectives. The CDTF projects more generally aligned with the objectives of these development plans. For example, it targets improved basic services, livelihoods, climate adaptation and local participation.

Influx of livestock from outside Isiolo County in ICCCF Urara Strategic borehole. Photo: Jane Kiiru

Table 4.2 Alignment of ICCCF and CDTF with county and national level development plans, and climate

Development Objectives	ICCCF Alignment	CDTF Alignment
a. CIDP (2013 – 2017)		
Develop and maintain infrastructure that addresses community needs Build a peaceful and cohesive society with equitable access to resources. Improve livelihoods through basic service provision, maximised production, and sustainable resource exploitation Promote public participation in decision-making processes. Improve access to clean water, basic health and education services.	The criteria necessitate that funded activities support the economy, livelihoods and important services, encourage harmony; and are developed in consultation with all potential stakeholders. ICCCF projects informed the ICIDP for 2013-2017.	The fund enhances community development through isolated projects that support basic needs. Projects are grounded within community groups and planning approaches promote community participation. Project alignment checked by respective government technical staff
b. Second Medium Term Plan (MTP2)		
Policies are designed to implement devolution, strengthening county government capacity, policy and coordination; build peace; enhance food security through agriculture growth; accelerate growth, reduce poverty, transform the structure of the economy and create more quality jobs, as the country prepares to achieve middle income status by 2030.	The fund's works with devolved government units to strengthen their capacity and autonomy. Local participation builds peace and local security, protecting livelihoods to ensure economic growth. Investments in public goods are meant to secure livelihood and production systems under climate uncertainty and change, enable livestock productivity and enhance food security.	The fund's projects focus on poverty reduction, through providing activities for specific societal groups e.g. farmers, pastoralists, business people. Peace and government capacity building are not prioritised.

The alignment of the ICCCF with the CIDP is due to the flexible nature of the fund to support the county strategies. It embraces a landscape level and integrated approach, encompassing multi-stakeholder actors, including government and local community; and accounting for interrelated processes, both vertical between different levels of governance and action; and horizontal among wards and counties. The climate resilience building activities and the ICCCF projects informed the CIDP (2013-2017), and sector plans such as the County Livestock Strategy. The Isiolo County Government is incorporating the ICCCF planning committees into its planning and financing structures (NDMA, 2014). The Isiolo Climate Change Fund Bill and the Isiolo County Customary Natural Resource Management (NRM) Bill, will together support the function and objectives of the ICCCF (see Box 2.1). Full integration of the ICCCF into county planning and finance systems is intended to complement the county development budget, using climate finance to support adaptation responses, particularly the climate resilient development. This integrated approach responds more comprehensively to objectives beyond immediate development, to capacity building, awareness creation, peace and long-term resilience.

The CDTF aim was to support government policy. It was housed within the Ministry of Devolution and Planning (MoDP) in an attempt to support its mandate. Project proposals were submitted to the CDTF through respective government departments so as to ensure alignment to government development priorities. Informants indicated that the position of the CDTF within the Ministry was not secure as there was little interaction between CDTF and other units of the Ministry. At county level, the CDTF interacted more closely with the County Government in its initial stages. The CDTF did not adapt its administrative structures along the decentralized unit in order to continue working in support of government objectives. Community Development Programme (CDP-4) aimed to support better governance from local to national level. Despite initial success, service contracts indicate that the CDTF sought support for strategic direction, strategies for mainstreaming cross-cutting issues, integration of emerging thematic areas like climate change and renewable energy, and providing overall support in programmatic management, as well as institutional development[14]. These findings suggest limitations in the funds capacity to adapt to changing government policy or decentralize in line with the Constitution of Kenya, 2010.

Box 2.1: Isiolo County Climate Change Bill and Customary Natural Resource Management Bill

Isiolo County Government has recently developed and submitted two significant county-level bills: the Isiolo Climate Change Fund Bill and the Isiolo County Customary Natural Resource Management Bill. These bills have been approved by the executive and await approval by the respective County Assembly.

The Climate Change Fund Bill provides for the establishment of a Climate Change Fund to finance, facilitate and coordinate financing of priority climate change adaptation and mitigation activities. It therefore represents an evolution from the adaptation oriented Isiolo County Adaptation Fund, re-launching the fund as the ICCCF to encompass mitigation projects (Isiolo County Government, forthcoming). It takes a community level focus, to support and coordinate financing mechanisms for community level adaptation and mitigation activities, and related knowledge building. Once passed the Bill will legally formalise the structure and functions of the CAPC and WAPC, and the process for identifying, planning, approving, financing, implementing and monitoring climate change projects, ensuring inclusive community participation. The proposed fund is in line with national objectives for accessing and managing climate finance. It stipulates that money will be sourced through county level domestic revenue (funding not less than 2% of the County revenue or development expenditure), the National Climate Fund, national and international climate finance sources, public benefit organisations, fees and charges from climate change related activities; and grants and donations (Isiolo County Government, forthcoming).

The overarching objective of the Customary Natural Resource Management (NRM) Bill is to revive and formalise an indigenous management system for natural resources that will conserve and protect as well as sustain natural resources. The Bill establishes a Council of Elders to coordinate NRM, community access and peacekeeping. It outlines penalties for any one engaging in prohibited activity that may negatively impact natural resource, thereby ensuring community adaptation and effective EbA practices in the county.

4.3 Project Planning

4.3.1 Planning, management process and responsibilities

The ICCCF process is designed to enhance participatory development, address climate risk and ensure sustainability of investment using government technical staff (NDMA, 2014). At the initiation of the ICCCF, WAPCs and CAPCs were established. WAPCs were publicly appointed through a process aimed at inclusive, interdisciplinary and multi-stakeholder representation. Each WAPC is responsible for coordinating stakeholders, developing projects in collaboration with communities, writing proposals, contracting service providers and submitting reports, according to their ward activities. The CAPC is also widely representative, comprising members from ward committees, county and national government representatives and other local stakeholders. They take responsibility for reviewing proposals and contracts, and providing technical support. IIED plays a facilitative role in planning and management (until the County Climate Change Fund Act is enacted) – by supporting CAPC in project reviews and releasing funds upon direction from CAPC. Projects are identified by WAPCs taking into account the outcome of a participatory livelihood and local economy resilience self-assessments.

Similarly, CDTF aims to promote community participation in the planning and management process. They relied on county government departments to identify CBOs to be invited to participate in the call for proposal, based on experience of implementing similar projects and capacity to mobilize 10% co-financing. These CBOs were invited to workshops organized by CTDF to share information about the fund and the application procedures. CBOs that were not engaged in the workshops learned to lean on other means. For example, ISOPAD learned of the call in a local newspaper. The CBOs were responsible for identifying community needs, preparing concept notes and developing full project proposals.

Both funds had a defined set of criteria, which must be realised in project designs and incorporated into concept notes and proposal to secure approval for funding. Results indicated that both funds follow an iterative process in the project design to ensure they meet specified criteria. In the case of the ICCCF, WAPCs prioritise adaptation investments based on seven criteria. The CAPC are required to accept all proposals that meet criteria 1 to 5 (Table 4.1). They must then provide technical support to WAPCs to strengthen proposals to ensure they meet criteria 6 and 7.

In the case of the CDTF, representatives work with CBOs to review and revise project proposals to ensure they met the expected criteria. The specific criteria for CDTF projects varied according to the particular project stream. Table 4.1 shows the criteria for project proposal under the Community Environment Facility Fast Start Programme. The CDTF's climate change theme prioritised climate change and alternative rural renewable energy programmes and were required to demonstrate that over 60% of investments directly supported these activities.

CDTF livestock support projects at Boji. Photo: John Nyangena

Box 2.2: Planning and implementation of water pans

A key point for comparing the two funds can be taken from the examples of the Boji and Duse Water Pans. In essence, these projects sought the same objectives – to better manage access to pan in order to improve and sustain water resources for user communities. To do this, both projects funded fencing, installation of a pump, water tanks and troughs, and construction of a hut for a watchman on site. The potential benefit of improved water management is vast, including improved NRM for better access to ecosystem services for livestock and communities, resulting in improved resilience and wellbeing for local and neighbouring communities. The comparative result of the two projects was striking – Boji Water Pan is considered a huge success by beneficiaries, while Duse Water Pan is considered a failure by the local community.

Research revealed that the key difference in the two projects was in the planning, design and implementation processes. Kinna WAPC managed the Boji Water Pan project. The project was identified through community consultation. The community highlighted that the pan was problematic for effective landscape management and affecting pasture management. They suggested either blocking or fencing the pan. After some discussion amongst the community, the decision was made to fence the pan and better manage the water resource. The community felt a sense of ownership from the initial stages having identified the problem and the solution themselves. The Boji Water Pan remains under community management. A watchman stays on site to provide security. The community pay user fees to support the project maintenance. Beneficiaries highlighted multiple benefits of the pan, including better water and rangeland management, improved livestock health and resilience and income benefits for different community groups – particularly women. The benefits have significance for ecosystem-based adaptation; climate resilience and human wellbeing.

The Duse Water Pan was funded by the CDTF. It was managed by KICBI, a local CBO based in Kinna. The community highlighted that they were not consulted or engaged in the planning of the project. Some community members were involved, but it was not clear how they were involved or who was approached. Though the Water Pan had been a useful resource for them, the project had undermined the authority of local community. The poor planning and implementation of the water pan project blocked community access, control and ownership of a previously accessible source of water. The community were not confident to be involved in its management after the installation of the fence and other inputs. The community have disengaged entirely from using the water Pan. There was no handover from the service providers to the community once the implementation was complete. The fence is damaged, the solar pump has been stolen and the tanks and troughs are in disrepair. The community now use an alternative pan for domestic use and go elsewhere to water their livestock. They reported that the project has done more harm than damage, detrimentally affecting their access to resources, undermining their community management systems and negatively impacting the resilience of the local community.

These above examples highlight the critical importance of engaging community participation from initial stages of interaction. The approach of the CDTF did not enable comprehensive community participation and representation. The community felt that the planning and implementation had been taken out of their hands. There were no feelings of community ownership, and therefore the community were not motivated to support the upkeep of the water pan. These outcomes can be considered as a maladaptation. Investment has been more detrimental than with no investment case. Conversely, it is apparent that the procedures of the ICCCF granted more community leadership, control and ownership. This has significant implications for access to benefits and for project sustainability.

In the two funding approaches, project proposals included a description of the problem to be addressed, a list of objectives, costs and number of target beneficiaries. Operational costs in ICCCF were capped at 5-6% of the total project investment, a condition not applicable in CDFT. ICCCF beneficiaries were split between direct and indirect beneficiaries. However, the fact that in both funds; projects lacked key performance indicators made it difficult to quantify the benefits. Approval for CDTF projects involved administrative and technical checks by an evaluation committee and Board of Trustee. Upon approval, the CDTF request the formation of a PIC, which is coordinated by the CBO and appointed by community members based on the CDTF request.

The PIC receives training in project and financial management from CDTF. Once established, the PIC is responsible for leading the project, managing finance, mobilising resources, contracting service providers, voicing community interests and reporting to donors and CDTF.

For the CDTF, two different agencies are responsible for planning and management. The CBO, which is already established, leads the planning of the projects. The PIC is established, upon direction from CDTF, after the planning process is completed. It manages the project according to the plans already in place and supported by training from CDTF. This suggests a potential lack of cohesion between planning and management processes. The PIC reports directly to the CDTF, but does not continue to work in collaboration with the CBO. In the case of the Animal Drug Store, ISOPAD felt that their project had been taken out of their control after the PIC was established. As a CBO, ISOPAD was much grounded within the community to provide a good entry point. It was established by the youth of the community since 2004, in an effort to seek financial opportunities for their community. The funding from CDTF was their main success in doing this, but management, was reallocated to the PIC, who reported directly to the CDTF rather than ISOPAD. This top-down influence from CDTF creates disconnect between planning and management of the project, thus negatively affecting community ownership and sustainability of the project.

4.3.2 Project Timelines

The cycles of the funds vary depending on the specific projects, procurement and tendering procedures and particular logistical constraints at the time of planning and implementation. Approximate cycle timelines identified during the study are summarised in Table 4.3. The timeline for each stage is dependent on the specific project and context of its design and implementation processes.

Under CDTF, the process starts with organizing workshops in each county where prospective applicants were sensitized about the fund and required to respond to the call for proposal. The workshops targeted CBOs who were potential recipients of the grants. The CBOs are identified by District Development Office in collaboration with government departments relevant to the call. During the workshop, participants are taken through the call and provided with forms to enable them respond to the call. Those interested submit the application form (Concept Note) to CDTF through respective government departments. This was meant to ensure that the concept note is in line with the government's development priorities. The concept note was then evaluated by the CDFT, and if approved an agreement was signed between CDFT and the CBO through PIC which defined obligations before funds were released. PIC comprised of representatives from the CBO and communities. CDTF issued guidelines on PIC composition but allowed community to carry out the selection, leaving the process in the hands of the CBO. Day-to-day running of PIC was performed by the chairperson and a project accountant both recruited through the project funds.

On average, ICCCF projects took one month at the proposal development, three months for approval and then one month from approval to delivery of the first funds (a total of 6 months). CDTF projects on the other hand were approximated to take one month to develop the concept note, five months to refine this and develop the full proposal. The approval process took another three months (a total of 9 months).

Table 4.3: A comparison of ICCCF and CDTF projects cycle

ICCCF			CDTF		
Stage	**Who**	**Timeline**	**Stage**	**Who**	**Timeline**
Preliminary planning	Local stakeholders conduct resilience assessment	N/A		CDFT announces call for proposals, awareness sessions with pre-selected CBOs,	Not available
Proposal development	IIED allocates budgets to WAPC, WAPC conducts community consultations to identify projects and write proposals	1 month	Project proposal	CBOs concept notes	1 month
Project review	WAPC submit proposal to CAPC for review	3 weeks	1st Assessment	Review panel assessment and scoring of concept notes, short listing and invitation of full proposal	1 and half months
	CAPC submits proposals to IIED for review	1 month	Full proposal	Submission of full proposal	1 month after 1st assessment
			2nd Assessment	Review panel assessment and scoring of application, notification of field work to successful applicants.	1 month.
				Field evaluation of shortlisted proposal, submission of Aide Memoire and resubmission of proposal if necessary.	1 and half months
			Capacity building	Training of grantees on management and M&E	1 month

Finance for Resilience Building

Contract signing	WAPC invites bids for service providers as per Public Procurement and Asset Disposal Act, 2015 WAPC evaluate bids, negotiates and signs contract with service provider	21 days 1 week	Contract signing	Formation of PIC, signing of contract between CDFT and PIC.	1 month after capacity building
Project funding	Submit contract to IIED for release of 50% of funds to service provider	2 weeks	Project funding	CDTF releases fund to PIC account	1 month
Implementation	WAPC, CAPCs and technical staff monitors progress and WAPC approves subsequent payments to service provider Upon completion WAPC hand over project to community committee	2 -3 months	Implementation	PIC implements the project and reports directly to CDTF Upon completion project handed over to a project committee	Environment projects lasted about 3 years Socio-economic projects 1-18 months
Total time taken	6 months		9 months		

4.4 Project approval and release of funds

The financial management procedures for the ICCCF were designed to empower community representatives to manage the allocation of climate finance (NDMA, 2014). Budget was allocated on a 70:20:10 ratio with 70% going to investments in public goods prioritised by communities for ward level projects through WAPCs; 20% to county-level investments (projects) identified by the CAPC; and the remaining 10% used for operations of the WAPC and CAPC committees (7.5% in practice). Funds for operation are transferred directly to WAPC and CAPC bank accounts. Investment funds are disbursed directly to the selected service providers after procurement documents and contracts have been verified. Funds are currently managed by IIED, but this responsibility will be transferred to the County Climate Change Fund administrator once the climate Bill is approved. This arrangement gave WAPCs operational independence and autonomy to contract suppliers directly without requiring them to handle money directly, which would necessitate further human resources and audits at ward level. Besides, this arrangement enhances WAPC capacity for consultation, access of technical assistance, and transparency and accountability in financial management.

CDTF funds were disbursed in tranches. Upon signing of the grant agreement, the 1st tranche (30%) was transferred to the PIC bank account. When 70% of these funds have been spent and accounted for, PIC applied for the 2nd tranche. Once these funds together with the balance from the 1st tranche are fully accounted for, the community was required to pre-finance 5% of the amount in the 3rd tranche as a way of building project sustainability. This was verified through an audit before releasing the final payment. In addition, CDTF projects required a 10% community contribution to the total cost, either cash or in-kind through labour and materials. There is no requirement for a financial contribution from the community although they contributed their time.

Successful projects were funded in instalments with subsequent release of funds tied to accountability of previous disbursement. The final instalment was conditional on beneficiaries pre-finance 5% of the project cost. This served as performance bond to ensure that the beneficiaries took charge of the project. This amount was beyond the 10% community contribution and was reimbursed by CDTF within 45 days of the CDTF approving the final project report. From the sampled projects, the level of funding per project was higher for CDTF than for ICCCF, with an average cost of Ksh. 3.0 million compared to Ksh. 2.2 million respectively.

The long process between project approval and funding under CDTF resulted in delays in the release of the 70% 1st instalment. As such some projects could be overtaken by events and even be funded by other better financed sources with faster implementation arrangements. In addition, the large portion of 1st instalment overwhelmed the PIC members as this demanded their good understanding of the funding system. Delays were also caused by beneficiaries' inability to raise the required 5% pre-financing funds. At times, even after PIC fulfilled all the requirements, there were delays in actual disbursement causing projects to stall. Surprisingly, although CDTF had a regional office in Meru town, neighbouring Isiolo County, there was no relationship with this office, as all proposals were submitted to and approved at the Nairobi headquarters. Finally, inability to meet the pre-financing requirement for the final 5% instalment release slowed down projects completion.

4.5 Project Implementation

The ICCCF projects are implemented by local service providers. Local service providers are identified by the WAPC, who launch a call for tender and select the service provider based on a bid analysis that examines supplies and reputation. This approach ensures that investments are made within the local area, providing economic opportunities for local service providers. WAPCs and local communities support implementation, and they may be engaged as paid labourers or volunteers. Projects are handed-over to communities by service providers after implementation.

Project Implementation Committees (PICs) coordinate the implementation of CDTF projects. The PIC identifies local service providers to implement the project and contract them directly. Skilled labourers and community volunteers support service providers during implementation. Cash transfers were made in phased instalments as set out in the grant contract. Instalments would be made upon receipt and approval of audit report of the previous instalment, from PIC members. The final 10% of the budgeted project cost is kept as a retention fund for a period of six months to ensure the project is complete and fully operational. The project is formally complete when 100% of the total project cost is accounted for in full and all relevant accounting documents are verified by CDTF. There are some differences between institutions coordinating projects at the lowest level for the two funds. Most respondents' felt that WAPC was better in delivering community projects compared with the PIC due to training received during formative stage.

4.6 Monitoring and maintenance

Community members and planning committees are also involved in monitoring of ICCCF projects, using the 10% administration cost. Community members oversee implementation and maintenance on an informal basis. They may report acts of vandalism to local elders to take action. The WAPC and CAPC are involved in monitoring projects more formally. WAPC members regularly check implementation progress. CAPC follow up on the activities of WAPCs to ensure that projects are completed in time. They track project milestones through meetings with communities, WAPC, NGOs and beneficiaries. Local NGOs also support monitoring and evaluation activities; for example, RAP in Garba Tula sub-county and Mid-P in Merti sub-county. One of the functions of PICs is monitoring of CDTF projects through periodic site visits. CDTF visit site during implementation and report progress to the head office. Once the project is completed, CDTF dispatched a member of staff to review the project. They provide a report and certificate of completion to the PIC. After completion, the project is handed over to the beneficiaries and the local community to undertake maintenance.

Overall, funded projects did not have baseline data and clear indicators upon which evaluation could be undertaken. In a few cases baseline studies were carried out but long after the project had commenced with the aim of informing project implementation.

Participatory monitoring and evaluation of the ICCCF projects. Photo: Cleophas Wangombe

4.7 Transparency and Accountability measures

The two funds incorporate principles towards realization of transparency and accountability measures. Transparency requires stakeholders to have information on the funds available, how it is deployed, and how it is used (IIED, 2015). Accountability requires actions, measures and processes to disburse funds to the local level (IIED, 2015). While transparency is supported by measures to ensure effective delivery –including phased payments and reporting - accountability aims to engage local stakeholders in the project implementation process. The study findings show that both funds provide a framework for community participation in decision-making, project design and implementation, although there are considerable differences between them. While ICCCF focus on institutional strengthening at the local level, CDFT mainly worked through established CBOs. Public disclosure of the criteria for evaluating the proposals in both cases was another transparency measure, although in the case of CTDF, unsuccessful applicants never received any feedback on their proposals.

Working from a known budget under ICCCF allows for stronger involvement and prioritisation of feasible projects rather than a long wish list. In addition, allocating funds to each ward and disclosing the same to the public, contributed to project prioritization and enhanced transparency. Periodic joint meetings organised for all WAPCs offered opportunities for peer learning and promoted accountability. Although CDTF call for proposal included information on the amount of funds available per project, these were only indicative and unique to the project.

The process of electing WAPCs members through a public forum boosted overall transparency of the fund, as beneficiaries had a greater say on the stewards of the funds. Annual meetings are convened for all WAPCs where project reports and lessons are shared towards greater transparency. In addition, WAPCs undergo systematic and periodic checks by the CAPC, IIED and auditors.

CDFT ensured that the signatories to the PIC bank account were not relatives, and no single cash payments above Ksh.10, 000 were allowed. CDTF carries out monthly audit to track progress and resource use. However, the fact that PIC was established by CBO that developed the project proposal meant that it was not accountable to the beneficiaries. It is assumed that the CBO originating the proposal represent the community interests and would be trusted to apply accountability principles while setting up PIC. The research team was not privy to the guidelines used in establishing PIC. Nonetheless, both its chairperson and accountant were competitively recruited and not directly affected by the problem, and therefore likely to show low motivation level. The mechanism for PIC-community interaction during project implementation was weak as the PIC was directly answerable to CDFT. This gave PIC great latitude to determine the pace and quality of the project, which made it difficult for the community to intervene in case they were not satisfied. There was greater incentive and opportunity for project beneficiaries to intervene under ICCCF.

4.8 Outputs and benefits of the funds

4.8.1 Project Timelines

The two funding approaches aim to secure benefits for the whole community by providing public goods. Planning procedures for these funds have mechanisms for community participation in project identification. The design of ICCCF focus on building climate resilience, for ecosystems and local communities, with socio-economic development co-benefits. Broadly investments under this fund target establishing and strengthening public goods. Support from CDTF is mainly meant to ameliorate poverty through social development, environmental sustainability and capacity building. The funding criteria in both funds require that the benefits accruing from the investments reach all members of the community, including vulnerable groups, women, elders and children. In particular, interventions in livestock management have a big multiplier effect considering that pastoralism is the dominant livelihood activity in Isiolo County. It is assumed that investments in pastoral resilience would ultimately directly and indirectly benefit the entire county population. This is so because public good investments tend to benefit the majority of livestock keeping households, including men, women and the children. Investments in better access to water and pasture management, for example, increase livestock productivity – more milk, more births and herd growth, and fatter animals. This is turn improves food security and wellbeing to various social groups (see annex 2).

Women benefit directly from increased milk production – because they could sell the surplus or turn it into butter and ghee for sale. Men benefit by fetching better market prices from sale of animals, while herders experienced less pressure from searching for pasture and water. The Resilience Assessments report produced under ICCCF revealed that households with fewer or no livestock also benefited from a strong pastoral economy. This resulted from abundant and cheaper milk, more animals and cheaper meat (source of animal protein), more labour work in digging water points and herding animals. Better livelihood affect children through outcomes related to water, education and health services. Across the sampled projects, beneficiaries indicated that economic savings are invested in school fees for children. Children benefit from improved health through quality diets (water, meat and milk) and better sanitation. Youth benefit by providing labour in construction work during project implementation. They are a primary beneficiary of surveillance activities under Kinna's NRM project. All vulnerable groups are supported by increased well-being and resilience outcomes.

The projects increase economic and social benefits for herders through strengthening water and rangeland management to support ecosystem services that sustain livestock. Herders also benefit from reduced conflicts over limited resources resulting from better management of natural resources. ICCCF projects have a particular focus on herder communities through supporting public goods that strengthen climate resilience and ecosystem-based adaptation. Pastoralist livelihoods more closely rely on broader landscape resilience, therefore support to landscape-wide resilience is closely intertwined with pastoralist livelihoods. Pastoralism is the dominant livelihood in Isiolo County, as it accounts for over 95% of livelihood activities. In focusing on pastoralism, ICCCF therefore benefit the largest proportion of the population.

ICCCF projects do not provide direct support to non-pastoralist economic livelihoods, such as crop farming and trade. In Isiolo, wealth is indicated by the size of a family's herd. Households without livestock are considered amongst the poorest in society. They are likely to turn to crop farming out of necessity rather than choice after losing their livestock. In these situations, farming may be a temporary measure. Any earnings families make from farming is invested in livestock, and families return to pastoralism as soon as they are economically able to do so. The climate for Isiolo is unsuitable for rain-fed farming but communities have proposed farming projects to WAPC's. For example, the community in Garfasa suggested greenhouse farming and irrigation projects, although they have not been prioritised under the ICCCF planning process. There is some suggestion that farming is increasing in the area, but figures are not available. The County Government provides some support but struggle to leverage anything significant beyond relief items.

The CDTF had a wider scope for supporting different activities. The funds broader focus on community development, as opposed to ecosystem and human resilience, provide an opportunity to respond to the needs of these marginalized groups who often pay heaviest price for climate impacts. For example, the outcomes of the Malka bridge project provided irrigation support for farmers within a 3km radius of the bridge. While the project has limited direct benefits for EbA and climate resilience, it supports the wider community by enabling better connectivity, and providing alternative economic opportunities. However, crop farming was not an alternative to livestock. The project improved production and market access for farmers, thereby supporting some of the poorest families in the community. The bridge also supports the needs of the Malka Cultural Community and their eco-village tourism site, providing increased income for the beneficiaries. These benefits have supported women, youth and elders by enabling their increased movement in times of stress. It also has secondary benefits for herders and consumers of livestock produce to supplement their diet and feed their livestock.

CDTF projects also support health, education and afforestation, which target to benefit a wider range of community groups. Whereas ICCCF outcomes are likely to have a wider impact throughout landscape level, it is not clear how wide reaching the outcomes of each individual CDTF project is. These inferences would need further investigation.

Another important beneficiary is the *Dedha*, a neighbourhood group of community elders vested with the responsibility of overseeing natural resource management within an ecosystem. Currently, there are 14 *Dedhas* covering the entire county. Most ICCCF interventions were meant to revive the traditional *Dedha* system of pasture management. *Dedha* uses a traditional management approaches to achieve sustainable and equitable allocation of pastures and water resources. ICCCF supported programmes to strengthen the integration of climate adaptation into pasture management by empowering the governance of the *Dedha*. As a consequence there is increased autonomy and respect from other community as well as from government (public) and non-public institutions.

4.9 Ecosystem related benefits

The primary outcomes of the projects include improved water and rangeland management, better health of livestock and community members, and increased incomes. These outcomes have implications for EbA, well-being and climate resilience.

By their nature most public investments in the County focus on water and pasture management. These were found to have significant EbA benefits, particularly relating to water management and natural resource management. Investments in water management included fencing of water sources to regulate access. Apart from improved access to water, the investments had several EbA benefits among them reduction in over-use and contamination and general improvement in ecosystem resilience and ecosystem service delivery, with associated improvements in human climate resilience as a result. Some ICCCF projects benefits involved improved access to water resources and rangeland management and slowed land deterioration, leading to rangeland regeneration. Emergence of new palatable grass species and increased tree cover were cited as indicators of improved ecosystem conditions.

Natural resource management (NRM) projects sought to revive the traditional *Dedha* system through grazing zones demarcation, controlled access, and improved surveillance. The Kinna *Dedha* reported that surveillance activities cover 70 km2 of rangeland. Through ICCCF support *Dedhas* have more say on pasture use and thus enhanced the capacity of ecosystem to better support pastoral livelihood. In other words, NRM projects revived the traditional cultural rights of local communities and resulted in increased respect for the *Dedha* and enhanced peaceful co-existence by empowering them participate in decision-making and conflict resolution among communities, both within and outside the County. Stringent enforcement of grazing patterns according to seasons was also vital in building ecosystem resilience to drought in the County.

Overall, improved well-being outcomes were also reported as one of the key benefits. Both ICCCF and CDTF investment had increased security, improved income and better health among local communities. As a result, communities reported greater feeling of happiness and reduced stress. Although it was not possible to quantitatively verify the income levels, it was widely reported that improved livestock production enhanced people's income. Due to improved well-being, community ceremonies such as weddings that require presence of livestock have become regular compared to pre-project period. Such events contributed to community cohesion and a collective feeling of happiness.

The majority of beneficiaries noted drought as the most significant climate threat. Participants indicated that the resilience to climate change has been improved by better livestock and human health, and increased incomes. The *Dedha* feel more confident in supporting their management activities and decisions with climate information through skills and knowledge developed during capacity building workshops. They are able to combine information from Kenya Meteorological Department with traditional observations to assess local climate conditions and plan accordingly. Thus, their adaptive capacity and resilience has been enhanced. Furthermore, improvements in livestock health due to better water quality and access, accessible pasture for grazing and improved vaccination services allow livestock to weather safely through periods of drought. There is reduced livestock mortality meaning community's main asset is secured and vulnerability reduced. Similarly, human health improvements with better water, meat and milk quality and access, and reduced need to move over long distances, make them more resilient to drought.

Despite the fact that the criteria used to select project necessitates all projects to specifically aim for building climate resilience, the results imply these are at times secondary, and sometimes unintended, co-benefit of the projects.

4.10 Sustaining project benefits

Community members act as watchdogs for the projects they are involved in such as water dams and pans. They monitor structures on an informal basis and report damages identified to the appropriate authorities for repair. Such structures are then sustained through community contributions, either for water access, project repairs or maintenance. Community members are more likely to engage in the process if they feel a sense of ownership and responsibility.

It was apparent that all the projects visited needed to be repaired at some point after they were implemented. For Bibi water pan, hyenas unable to access water, once the pan was fenced, destroyed the pipes. Beneficiaries reported that metal pipes are required to stop hyenas chewing through the plastic pipes, although some people doubted their viability. This suggests lack of professional input in the project's design. The cost of materials is considered a big challenge to maintenance, since the fee paid by users is inadequate. This problem is exacerbated by lack of a system to ensure that users from outside the county pay user fee to access the pan. For the case of Malka Bridge, rehabilitation takes place twice a year after rainy season floods through community contributions.

Irrespective of the fund, there is no systematic method of pooling finance for maintenance and repairs. Whenever major maintenance is required, communities are approached to make individual contributions to meet the costs.

In both funding approaches, beneficiaries indicated that benefits would continue and even increase as long as the projects are properly maintained. They noted that with the growth of population, more people are likely to benefit, necessitating increased use and regular maintenance of the projects. For projects that have a financial input from users, beneficiaries noted that sustainability is achievable because the funds raised can be used for maintenance.

The two approaches aim to strengthen local institutions as part of the sustainability strategy. Yet, the role of the WAPC and PIC after the projects implementation remains unclear, since people do not appear to be engaged in running of the projects. Capacity building for *Dedha* was found to be an important sustainability measure since they were directly involved in setting up the project and enforcing access rights and grazing patterns that build on their own age-old traditional system. In the future, enactment of the County Climate Change and Natural Resource management laws will certainly integrate the ICCCF institutions into the County system and provide greater assurance of their sustainability.

4.11 Challenges in fund delivery to local level

This section highlights the main challenges of delivering funds in the two funding approaches. Some challenges are common to the two funds while others are unique to each. Both approaches provided mechanisms to tap into county government technical staff throughout the project cycle. For ICCCF, the CCAPC ensured quality of proposal, while for CDTF proposals were submitted by CBOs to CDTF offices through the respective government departments. However, at the wards level where actual implementation was taking place, there were few technical officers. For example, there was only one water officer covering both Garba Tula and Kinna wards (a total of over 6,000 sq. Km). Given that WAPC and PIC are non-technical entities, having few government officers at the ward level delayed proposal development and undermined the quality of supervision.

Further, in some areas within the county the capacity was not available. This was confirmed by one respondent who reported that boreholes constructed in Cherab and Chari wards failed, due to poor technical assessment – the former did not yield water while the latter had high salinity. Respondents felt that the time in between proposal development and funding disbursement (6 months for ICCF and 9 for CDTF) was too long, especially if the investment was responding to an emergency need. In particular, the many stages and iterative process within CDTF were perceived as complex and cumbersome. Even when proposals were approved, there were delays in setting up contractual issues and in the actual disbursement. In CTDF this process took about 2 months and ICCCF slightly over a month. It was explained that because of prolonged delays, potential for a donor with faster disbursement to support the approved proposal was high. In case of ICCCF, funds were transferred from IIED to the service provider upon WAPC recommendations, while for CDTF transfers were made to PIC upon satisfaction audit report.

Although planning under ICCCF was based on a resilience assessment, delivering adaptation among pastoral communities was found to be challenging particular when implementation schedule was not aligned with their mobility calendar. There were also difficulties in planning and executing projects on resources that extend beyond the boundaries of Isiolo County- ICCCF projects shared with wards were implemented by the CAPCs.

There is also another challenge relating to the sustainability of the institutions created under the two funds. It was reported that both WAPC and PIC roles ended once the project was implemented and handed over to the beneficiaries/project committee. The budget allocated to WAPC was inadequate to support its activities beyond the project implementation. On the other hand, PIC being an integral part of the project, ceased to exist once the project ended. As a result, most projects face maintenance problems. A critical challenge relate to the legality of the WAPC and PIC as these were established in a lacuna- the county climate fund bill is yet to approved. Lack of legislation at either county or national level is a risk to fund effectiveness.

Specific to ICCCF, projects experienced low level of monitoring due to inadequate resources allocated to this activity. The funds allocated to WAPC for monitoring are insufficient forcing them to offer voluntary service to close-by projects. From the communities' viewpoint, there are also few government technical officers to support ICCCF activities, as they were involved in other regular activities. After project completion no funds are earmarked for monitoring and therefore difficult to monitor project benefits. This is compounded by weak mechanism for handing over the project to government departments for continued supervision. As a result, many projects under the two funds face serious sustainability challenges as explained by a respondent:

'the main challenge with ICCCF and CDFT projects is sustainability. If you look at the water projects the fence has been brought down. The community need to be empowered more. Some projects require inter-county negotiations, community negotiation and involvement of the national security. Communities should also be encouraged to contribute something and the county to chip in as well so as to employ full time watchmen on the water pans (Key Informant, Isiolo, September 2016).

Sustainability of water pans is further complicated by the hyenas, which break plastic pipes used in the construction. Traditionally, the Boran used to leave water in the trough for the hyenas (wild animals), but since the level of the trough is raised, the water is inaccessible forcing them to vandalize the pipes. An inquiring on why metal pipes were not used gave contradictory responses-with some claiming that metal pipes are not appropriate in hot conditions, while others felt that this will solve the problem. Cases of metal pipes were, however, observed in some other projects.

For CDTF, it was observed that the mechanism for engaging communities was not quite working and the process between designing and approval of the project, which is lengthy and cumbersome. Weak engagement of beneficiaries and government technical personnel exposed the fund to manipulation by the political elites. This affected project sustainability as no one was willing to take up ownership upon completion. One respondent reported that:

"CDTF approach is kind of centralized. You can easily manipulate it. And there is no much community involvement. Once the community is involved the project will start and will continue well or will not even start if people are not supporting it" (Key Informant, Kinna, August, 2016).

Another challenge relates to weak financial accountability. Because of the nature of CDFT registration as a trust fund, there were no clear mechanisms to address misappropriation of funds by the PIC. Such cases would only be reported to the government, a factor that exposed it to high risk.

5. Discussion

The central aim of this paper is to compare financial flow in support of community development and ecosystem-based adaptation initiatives between a locally managed and a nationally managed funds. The results show that each funding modality has some strengths and weaknesses based on the fund architecture. The choice of the modality for project implementation so much depends on the objective for which the fund was designed. It is important to reiterate that information provided for CDTF is specific to Isiolo County and does not necessarily paint the entire picture of the fund.

The CDTF financing process is designed to enable beneficiaries manage their own development projects. It adopted a flexible funding mechanism to channel funds from the CDTF directly to project beneficiaries[15]. Beneficiaries must meet certain conditions before project funds are disbursed to them. For example, they must hold a launch workshop; elect a PIC; open a project bank account; specify community contributions; sign the grant contracts and agree on roles and input of additional stakeholders, e.g., NGOs, CBOs as partners or GoK departments as associates[16]. Transfers are made directly to the project bank account, which is managed by the PIC. The PIC is responsible for making payments directly to service providers and other stakeholders as required. They report directly to the CDTF.

On the other hand ICCCF is coordinated by the county based CAPC with a more specific target for climate resilience. Funds are allocated to the WAPC, who in turn identify a service provider to undertake the actual project implementation.

Governance framework is a key element in both approaches. This sets the overall policy and guidelines to access funds that determined the effectiveness of the funding approach. An important difference is that CDFT guidelines were determined by the EU and included in the call for proposal. Because of its national coverage, such guidelines would not always resonate with the local needs. In addition, the lack of county representation on the board meant that funding guidelines had little prospect of meeting county priorities. The requirement for government staff to approve the concept note was deemed insufficient and more of a formality given the low budget allocation for development projects by the county government. From our analysis, when beneficiaries are incorporated in the fund's governance framework, there is increased prospect of meeting their aspirations and improved overall effectiveness.

Incorporating beneficiaries has other benefits. Among the Boran community, the traditional elders' systems (*Dedha*) are instrumental in planning for sustainable rangeland and water management, which builds community wellbeing and resilience. Incorporating such an institution in the fund governance and decision-making process enhances its effectiveness while promoting the integration of local knowledge in fund investments.

Governance is also critically important in targeting community investments. In the case of ICCCF, the WAPC proposed projects based on the resilience assessment reports. This helped tailor the proposal along the priorities already identified in the reports – including community putting the local context into consideration when planning and designing the projects. In addition, a prior knowledge of the project budget enhanced WAPCs' likelihood of targeting investments to area with the greatest outcome. For CDTF, proposals are developed based on a call for proposal issued by CTDF, which does not necessarily respond to the local priorities, but are general enough to allow applicants propose projects. ICCCF support activities identified in the resilience assessment report, mainly on livelihood and ecosystem improvement, CTDF support was more general and extended to social services like health and education. Hence, the two funds synergistically support beneficiaries' priorities.

Another important element of fund effectiveness is the speed of disbursement. Barriers along the planning and management cycle can cause delays in fund delivery and project implementation. For both funds, delays occurred where communication outside of the county was required particularly at the approval stage. Communications between community, WAPC, and CAPC was swift but some delays were experienced during proposal review. Approval was however much longer for CDTF projects, as communication took place with the PMU located outside the County at every stage in the project cycle. CDTF proposals went through more stages compared to ICCCF, and relatively longer communication process between the proponents and the CDTF headquarters. The lengthy process to verify fact on the ground, a mandatory requirement under the CDTF, further affected approval process.

Differences also exist in the level of project monitoring with the two funds. Under the locally managed fund, WAPC and CAPC supervise the service provider. Since these are located closer to the project site, project monitoring is more effective compared to CDTF projects whose monitoring was coordinated from the head office.

On fund mobilization, the capacity to mobilize as well as the level of investment per project in CDTF (~Ksh 3 million) was higher compared to that of ICCCF (~Ksh. 2.2 million), and therefore expected to be associated with greater benefits of implementation. This suggests that CDTF had greater capacity to attract funding compared to ICCCF. In addition, CDTF was implemented for close to 20 years, thus reliable and predictable. Further, nationally managed funds such as CDTF also tend to have greater potential to secure resources from multiple sources. At the same time, nationally managed funds benefited from relatively wider pool of technical capacity available at the national level.

6. Conclusions and Recommendations

6.1 Conclusion

This is paper has made an attempt to compare the flow of funds between a nationally managed and locally managed funds in Isiolo County. The results show that there exist strengths and weaknesses in each of the funding modalities and the choice depends on the purpose. A locally managed fund is associated with greater awareness among potential beneficiaries and greater community participation, a prerequisite for the success of community development and ecosystem-based adaptation projects. In particular, when funds are managed locally, the potential for supporting tailor made projects in resonance with the local context is higher. As a result, community needs are better targeted compared with a nationally managed fund. In both funding approaches, however, conceptual issues on what constitutes devolution and the nature and extent of community participation should be addressed.

Despite differences in the amount of time taken to deliver community projects, the process is long and cumbersome. Compared with a nationally managed fund, a locally managed fund reduces the time taken between proposal development and fund disbursement almost by half. This is due to fewer stages in the project cycle and shorter turn- around time. In addition, for locally managed funds, key decisions about the funds are made at the county level with people who are well versed with the local circumstances and their development needs. Supervision and monitoring of projects is more effective for locally managed fund compared with the national one.

Based on the findings, institutional structures are important instruments for delivery of community development and climate resilience. For instance, ICCCF is implemented through CAPCs and WAPCs while CDTF is through PICs. All these institutions operated without a legal basis and therefore remain informal in nature, and their role was limited beyond post-project implementation. For example, WAPC involvement in the project was minimal once the project was handed over to the beneficiaries, while PIC ceased to exist all together. Moreover, sustainability remains a major challenge for community projects as little funds are dedicated to operational costs. In both funding approaches, sustainability measures were weak to guarantee continued flow of benefits once the project funding ends. Thus weak sustainability implying that community contribution is not sufficient, even though, surprisingly, sustainability was explicitly stated in the criteria for project evaluation under CDFT. Projects that have social benefits are likely to contribute to ecosystem resilience and climate resilience. It emerged that sustainability would be enhanced with greater and consistent stakeholder engagement throughout the project cycle into beyond project implementation phase.

With the exception of natural resource management projects, all sampled projects had a clear geographical scope, and focused on a single sector. This shows a tendency to support projects where benefits were realisable quickly and easily demonstrated; a common feature of project based funding. However, the fact that climate issues typically cut across multiple sectors suggests that a single sector approach may dampen efforts to build climate resilience. Instead, an ecosystem-scale focus for local development could be more likely to achieve sustainability. Of the two funds compared here, the nationally managed fund may be better able to meet this need due to its greater ability to cover multiple sectors, communities and administrative units, and operate at the appropriate ecosystem scale.

Climate change is of course a global challenge whose impacts are highly localized. On the basis of this research, although ICCCF and CDTF differ in their overall design, each depict important elements that can synergistically enhance support for adaptation in Kenya, which has a devolved system of government and a high proportion of rural people directly reliant on natural resources for their livelihoods. Both funding models have significant potential in terms of scaling up support for ecosystem-based adaptation, because they are cross-sectoral (especially the nationally managed fund), compatible with the governance and institutional structures that manage dryland ecosystems, and can operate at scale. The county level funding model also prioritises beneficiary engagement and benefit, which is central to EbA.

6.2 Recommendations

On the basis of the findings, the following recommendations are proposed towards enhancing delivery of adaptation investment in Isiolo County.

Ensure fund flexibility. Community support should have a fair amount of flexibility to enable beneficiaries to decide on what type of projects should be given priority and funded. The funds should be designed to incorporate the needs of the communities, for example through a rapid rural appraisal.

Adopt an integrated planning approach that recognizes the complex web of interactions between local livelihoods and ecosystem services. Rather than focus of on single village level, embracing an ecosystem wide planning approach will go a long way to ensuring effective planning of trans-boundary resources, especially in pastoralist areas. In Isiolo County, where natural resources benefit both human and wild animals, such a planning approach will allow configuration of projects in such a way that wild animals are not excluded from accessing benefits.

Redesign sustainability measures. Current sustainability strategies have not delivered the desired outcomes due to weaknesses in institutional frameworks for accessing benefits. If benefits accruing from the fund investments are to be enhanced and continued beyond the project implementation, redesigning the fund sustainability criteria is key. At the outset, the adaptation fund should clearly define how the project benefits will be accessed and the roles and responsibilities of institutions to operate and maintain the project.

Work with the County government. The paradigm change brought about by Kenya's devolved system of government places great responsibility for local development on county governments. Indeed, most community interventions on livelihoods and ecosystems - which are candidates for adaptation - are coordinated at the county level. Any funding model targeting local adaptation should therefore be cognizant of this fact and deliberately seek to engage them in the delivery process. This will ensure the fund supports inventions addressing county priorities and delivery benefits from County technical capacity. It is also important that the institutions through which funds are channelled are devolved, aligned with those provided in the devolution legislation to avoid unnecessary duplication.

Enhance local technical capacity. Projects which require technical skills to maintain them should strive to build local capacity appropriate for this function. Training and skills development for members of the community should be an integral part of the project objective and expected overall outcome. This will ensure that relevant skills are readily available locally making it less costly to attend to operational and maintenance needs.

Annex 1: List of Sampled Projects

Project	Stakeholders & Responsibilities	Objectives
a) ICCCF Projects		
1. Bibi Water Pan	• Kinna WAPC: planning and finance • Community: planning, implementation, management, monitoring, maintenance	• Health, water hygiene, good quality water for livestock and domestic use. • Long duration of water availability • Proper pumping of water • Ample water for livestock • To control water access • To support pasture use and management • To prevent livestock disease e.g. foot and mouth, which is easily passed when multiple animals use the pan
2. Boji Livestock Facility	• Garba Tula WAPC: planning, finance, oversee implementation, monitor • Community: planning, implementation • Service Providers: Implementation	• Ease spraying, vaccination, handling of livestock to increase climate resilience, herder and animal safety and community health from reduction of pesticide use
3. Kinna NRM	• Kinna *Dedha*: planning, implementation, management, monitoring maintenance • Kinna WAPC: planning and finance, tracking implementation • RAP: Implementing through delivering training	• Strengthen NRM to build climate resilience • Increase understanding of seasonal grazing patterns and the rules of natural resource governance • Revive traditional landscape governance to address resource limitations • Strengthen activities of *Dedha* committee by providing capacity building, and motorbikes and radios for surveillance
4. Garba Tula NRM	• Garba Tula *Dedha*: Implementing • Garba Tula WAPC: planning and finance • RAP: Implementing through delivering training	• Strengthen NRM to build climate resilience • Strengthened activities of *Dedha* committee to control grazing patterns and NRM, by providing capacity building support

b) CDTF Projects		
1. Malka Bridge	• Malka Community Group: Planning, implementation, monitoring, maintenance • Engineers: Planning, implementation • KICBI: Planning, finance, monitoring	• Improve people's connectivity • Provide irrigation mechanism
2. Duse Water Pan	• KICBI: Initial planning • PIC: Implementation and monitoring • Community: Site selection, oversight for implementation – community not involved in initial planning phase • Service Provider: Implementation • Engineer: Design, Implementation	• Rehabilitate to improve access to water for livestock and domestic use
3. Boji Veterinary Drug Store	• CDFT: Finance • ISOPAD: Initial planning • PIC: Implementation and monitoring • Community: Finance (10% contribution); implementation • Engineer: Design, Implementation	• Construction and equipping of a community animal drug store • Enhance community access to veterinary drugs and other animal health services to address issue of livestock disease, to strengthen and improve livelihoods.

Annex 2: Summary of project specific benefits and sustainability

Project	Wellbeing Impact	Climate Resilience Impact	Sustainability Measure Ongoing Benefits
a) ICCCF Funded Projects			
1. Bibi Water Pan Fencing of water pan and installation of pump, water tanks and water troughs	• Improved income from selling milk and meat • Good human health – water and meat quality • Reduced water and land based conflict and increased peace • Decreased pastoralist stress	• Strong livestock can survive better in drought • Women have time to take care of animals, therefore there is decreased livestock loss in drought • Decreased livestock death improves people's resilience • Less extreme movement in times of drought due to proper grazing plan • Reduced vulnerability due to decreased conflict • Wellbeing benefits mean people are stronger, more climate resilient and able to invest in resilience activities	• Beneficiaries pay a small levy to support the pan • People act as watchdogs to ensure water pan is protected and maintained • Increased resilience and livestock health increases breeding for long-term benefits
2. Natural Resource Management Support Capacity building and surveillance support to Kinna Dedha group	• Increased income, decreases poverty and enables investment in education for children • Empowered communities from increased ownership and control of resources • Actualisation of cultural rights • Decreased conflict, increased peace • Increased community ceremonies (e.g. marriages)	• Increased livestock resilience due to better health • Increased human resilience due to better health, increased incomes from milk and livestock sales • Better understanding and use of climate change information	• Community contributions of Ksh. 1,000 per household for project maintenance, e.g. to fuel motorbikes and buy food for surveillance team
3. Natural Resource Management Support Capacity building and surveillance support to Garba Tula *Dedha* group	• Improved water quality and sanitation has reduced the incidences of diseases for livestock and humans. • The community is happy because livestock are healthy and their work is easier • Women no longer move long distances and can readily access clean water	• Increased access of climate information from the Kenya Meteorological Department. Increased understanding of climate change and how it affects livelihoods • Ability to act on climate change information e.g. reduce size of herds after indications of reduced rain • Ability to act on cliamate change information e.g reduce size of herds after indications of reduced rains	• Increased awareness of system can increase benefits • Traditional system should be mainstreamed into the formal administration system for it to be sustained. • Remaining water pans should be rehabilitated and managed; those not beneficial to the community should be blocked.

	• Reduced water conflicts and ease of conflict resolution	• Support climate information with traditional knowledge to respond to drought – e.g. monitoring movement of cows and looking at stars – plan based on expected climate outcomes	
4. Boji Livestock Facility – Constriction of livestock facility for livestock treatment and vaccination	• Toilet has improved sanitation and health • Increased income due to job creation • Beneficiaries are happy due control of animal diseases; and increased supply of milk and meat • Reduced stress due to increased livestock health	• Increased vaccination and spraying has improved livestock resilience to drought • Improved human resilience due to security of assets	• The benefits will continue in the next 5 to 10 years and are ready to do it maintenance. • Whenever there is need for maintenance, it has been agreed by the *Dedha* elders that a contribution of Ksh. 500 will be made.
CDTF Funded projects			
1. Malka Bridge Construction of small road bridge over a ditch, with water valve for irrigation	• Improved happiness due to decreased conflict over water and increased food production • Harmony between communities because of arrangement of how and when to get water • Farmers security due to increased production and sales • Food security is particularly impactful on the wellbeing of women, youth and elderly who are sedentary in times of drought and food insecurity • Increased profits and funding opportunities for cultural center • Increased farmer income to pay for education	• Irrigation water used to grow fodder – this is stored for pastoralists to buy from farmers to feed livestock, reducing animal deaths, securing against asset loss and support resilience during drought	• Benefits outweigh the costs; so many things have improved – access, school attendance, market activities • Proper maintenance of bridge needed to sustain benefits – income of farmer and cultural centre is tied to improved access and irrigation • Community members each input Ksh. 100 when repairs are needed

2. Duse Water Pan Fencing of water pan and installation of solar pump, water tanks, water troughs	• Discontent with project outcome • Disempowerment - community unable to reinforce previous management practices due to pan use by rival communities with different practices • Loss of reliable water supply • Livestock health worsened due to spread of new disease	• Reduced resilience due to lack of reliable water supply and regulatory control	• The biggest contributor to failure is lack of community engagement in the project from outset • The community has shifted focus to another pan but it is only for domestic use and does not sustain them from one dry season to another – need to ferry water from neighbouring towns.
3. Animal Drug Store Construction of drug store for stocking and selling veterinary products	• The community is happy. • Reduced stress of searching for necessary drugs • Increased incomes have increased capacity to buy food and clothes, and pay school fees	• Reduced impact of opportunistic parasites and diseases that attack animals during drought • Treated livestock survive the dry season – livestock are resilient	• Benefits will continue as long as drug store is sustained

End Notes

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Ecosystem-based adaptation (EbA) involves the use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change. The concept has the needs of people at its centre, and it uses participatory, culturally appropriate ways to address challenges. The International Climate Initiative project 'Ecosystem-based approaches to adaptation: strengthening the evidence and informing policy' is coordinated by IIED and IUCN with support from UNEP-WCMC, and runs from 2015 to 2019. By bringing together the knowledge and experience of partners who operate EbA projects in Asia, Africa and Central and South America, it aims to demonstrate when and why EbA is effective, explore opportunities for and obstacles to uptake, and develop clear country-specific policy recommendations. Broader outputs will include practical guidance to help people integrate EbA into climate and development policy and planning, and the communication of project findings at key international events. Find out more at: www.iied.org/ecosystem-based-approaches-climate-change-adaptation

The Adaptation (ADA) consortium is a core component of the National Drought Management Authority (NDMA) strategy and funded by DfID within the Strengthening Resilience and Adaptation to Climate Change in Kenya plus (STARCK+) programme. The aim of Ada is to pilot climate change adaptation planning approaches and to enhance climate resilience through provision of climate information services in the five Arid and Semi-Arid Lands (ASALs) counties (Garissa, Isiolo, Kitui, Makueni and Wajir) that, if successful, will be replicated in other ASAL counties and beyond. The consortium consist of Christian Aid working with ADS- Eastern in Kitui and Makueni, International Institute for Environment and Development (IIED) working with Resource Advocacy Programme (RAP) in Isiolo, WomanKind Kenya in Garissa,and Arid Lands Development Focus (ALDEF) in Wajir, Met Office (UK) and the Kenya Meteorological Department (KMD).

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