



Case Study on Approaches for Supporting Pastoralist groups facing climate change effects in Tanzania

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Sam Greene **ABSTRACT**

The Irish Aid learning platform seeks to generate evidence from case studies on effective methods of mainstreaming climate risk management into development planning. This paper draws on the experience of programmes implemented by Care, Oxfam and IIED to identify effective methods of climate mainstreaming.

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List of Acronyms

BRN	Big Results Now
CAF	Climate Adaption Fund
CBO	Community Based Organisation
CEDESOTA	Community Economic Development and Social Transformation
CIS	Climate Information Services
CORDS	Community Research and Development Services
CRM	Climate Risk Management
CSO	Civil Society Organisations
DAPC	District Adaptation Planning Committee
DFID	Department for International Development
GoT	Government of Tanzania
HKC	Hakikazi Catalyst
HUDESA	Human Development Strategies Association
IIED	International Institute for Environment and Development
LGA	Local Government Authority
M&E	Monitoring and Evaluation
MKUKTA	National Growth and Poverty Reduction Strategy
MP	Member of Parliament
O&OD	Opportunities and Obstacles for Development
PINGOS	Pastoralists Indigenous Non-Governmental Organisations Forum
RA	Resilience Assessment
TAMD	Tracking Adaptation Measuring Development
TAPHGO	Tanzania Pastoralists and Hunter Gatherers Organisation
TMA	Tanzania Meteorological Agency
TNRF	Tanzania Natural Resource Forum
TSH	Tanzanian Shilling
UCRT	Ujamaa Community Resource Team
VICOBA	Village Community Bank

Executive Summary

The impacts of climate change are posing a direct threat to pastoralists and agro-pastoralists in the arid and semi-arid lands of Tanzania. Increasing variability of rainfall, rising temperatures and seasonal uncertainty are increasing the level of risk posed to communities and the plans of district and national government. These impacts are exacerbating inequalities already inherent in the institutional, legislative and policy environment for pastoralists.

Since Tanzanian independence, policy and legislation relating to livestock keeping has been based on misunderstandings about the sustainability and relevance of pastoralism in an industrialising economy. As such, policy and legislation in areas as wide as agriculture, natural resource management, tourism, conservation and urban development have had vague or contradictory solutions to problems associated with pastoralism. A focus on modernisation and commercialisation of both crop farming and livestock keeping has dominated policy, disregarding local or customary knowledge. These policies have served to undermine pastoralist livelihoods as a growing population and increasing numbers of investors take advantage of government incentives to engage in large scale commercially oriented crop production and modernised livestock production.

Irish Aid is establishing a Learning Platform on climate change. The platform seeks to build capacity of its' staff and partners to incorporate climate change into development planning and improve tracking and reporting of climate change activities. The Learning Platform (LP) has commissioned IIED to undertake a number of case studies to assess how climate change is being integrated into development planning by governments or development agencies in countries where Irish Aid has programmes. Irish Aid has therefore commissioned a study of three projects in Tanzania that seek to enhance climate risk management.

- A programme to establish a “devolved level climate finance mechanism” implemented by the International Institute for Environment and Development, funded by the UK’s Department for International Development.
- A “Pastoralist Programme” focussing on community support and national advocacy managed jointly by Tanzania Natural Resources Forum and Care Tanzania, implemented by local and national Civil Society Organizations.
- A Pastoralism Programme, also focussing on community support, national and international level advocacy managed by Oxfam Tanzania and implemented by national CSOs in Tanzania.

The study used an Appreciative Inquiry approach to draw out the strengths and learning from each project, in order to channel these findings into future programming. The analysis of the study’s findings was guided by the Tracking Adaptation and Measuring Development (TAMD) framework. TAMD provides a method for gauging the quality of climate risk management and the resilience building and development impacts of interventions.

Key Findings

Village land use planning has a rapid impact. The facilitation of land use planning to support access to key resources (grazing land, water etc.) for pastoralists is an effective method of improving natural resource governance. Land use planning segregates areas for farming, grazing, settlements and other uses. In doing so, it designates areas in which pastoralists can manage and plan resource use using customary institutions. Land use planning serves as a

basis for enactment of by-laws that can prevent further loss of land to smallholders as well as investor “land grabs”. It also strengthens rural land administration and management.

Land use planning coupled with legal ownership can be a powerful combination.

Development of village land use plans backed by formal communal rights of ownership offers a stronger legal basis for preventing land grabs or encroachment from both large and small scale investors. This approach seeks to merge customary and formal institutions to provide security of resource access, ownership and control. However, risks to this process lie in the ability of governments to divide villages, undermining the legal basis for continuity of customary rights of occupancy held by pastoralists and smallholder farmers.

Raising awareness of women’s rights transforms gender dynamics. When communities and village councils in pastoralist areas are trained on women’s rights to own assets such as land, livestock or businesses, these rights are quickly enforced. Consequently, women are empowered to establish or run income generating activities that benefit everyone in a household. This is bringing equity in decision making and empowering some to seek formal representation in various decision making forums such as village and ward councils and village committees.

Dialogue and strategic engagement targeting current issues are key to advocacy. Advocacy for pastoralist rights has been most successful when representatives of both government and non-governmental institutions are engaged in dialogue. Broad based coalitions of different groups with similar perspectives have opened the potential for constitutional change. Government staff have shown a willingness to listen to evidence generated by Civil Society Organisations (CSOs) and to incorporate them into budgetary or other discussions. Advocacy has also been most effective when it has focussed resources on strategic moments such as during the parliamentary government budget sessions or constitutional review process.

The district authority is the most effective entry point for climate risk management. The largest strides in mainstreaming climate change and developing climate risk management have been made when the district council has been included. Capacity building of district officials through training, dialogue, or facilitation of discussions about resource use has enabled district councils to provide improved services to pastoralists. It has also made districts willing to develop planning processes that incorporate resilience building into the planning and budgeting process. However, this process is gradual. Success depends on facilitating ownership of the process of change among district staff.

The community as an entry point offers quicker positive outcomes with less climate integration. Working at the level of the community has delivered modest, positive outcomes regarding gender equity, security of resources, reducing environmental degradation and communal empowerment. However, these quicker outcomes come at the cost of minimal progress on integrating climate risk into planning in the long run.

1.0 Introduction¹

Tanzania's 2 million pastoralists and agro-pastoralists will be seriously affected by the impacts of climate change. Both livelihood strategies are dependent on resources such as soil, water, and good quality pastures, all of which are being affected by changing weather patterns. Increasing variability of seasonal onset, intensity of rainfall and rising temperatures are bringing risks of more virulent crop and animal diseases, weakened soil quality and periods of severe water stress. Coupled with increasingly frequent and severe droughts, the long-term sustainability of pastoralist livelihoods are being threatened. Such threats undermine contributions made to the economy as a result of pastoralist production systems.

Pastoralists have been described as “masters of adaptation”, actively relying on variability to maximise productivity during periods of plenty, and carefully managing rangelands during periods of shortage (Msangi et. al., 2014). However, years of government policy that does not take into account pastoralist livelihood strategies has undermined these customary planning systems and adaptive capacity. As the impacts of climate change continue to take effect, the negative impacts of government policies are being exacerbated, threatening to bring further hardships.

The Irish Aid Climate Change and Development platform seeks to build the capacity of Irish Aid staff and partner's to incorporate climate change into development programming and improve tracking and reporting of climate change activities. Several development agencies have initiated programmes in a range of countries that support the integration of climate change into development. In the light of these efforts, some initiatives have tried to capture the early lessons emerging.² The platform aims to contribute to this work by documenting a number of case studies drawn from projects taking place in its target countries. The platform commissioned IIED to conduct a study to assess how and how well climate change is being integrated into development programmes and planning either by government or development agencies. Ultimately, the purpose is to learn lessons from the best approaches and what has been tried and achieved so far.

In Tanzania, Irish Aid is funding three projects that focus specifically on pastoralists or areas in which pastoralism dominates local economies.

- The “Pastoralist Program”, funded by Irish Aid and managed jointly by Care International and the Tanzania Natural Resource Forum (TNRF). The program provided capacity building and funding for local community-based organisations to improve their ability to design and run interventions that support pastoralists. Interventions focused on securing resource access through improved local land management, enabling advocacy and communication, gender rights and climate change training and awareness. It also supported civil society organisations to advocate for “pro-pastoralist” policies at national level. .

¹ The author would like to acknowledge the support of Zakaria Faustin, Marcey Madubi, Julian Dalika and Kain Mvanda for their support during field work and comments on various versions of this case study.

² For example, see “*Mainstreaming the environment in Malawi's development: experience and next steps Environmental Governance No. 4*” IIED, London, 2010
http://www.unpei.org/sites/default/files/e_library_documents/Malawi_Mainstreaming_the_Envr_in_Development_2011.pdf

- “Promoting adaptation and climate resilient growth through a devolved district climate finance mechanism”, implemented by The International Institute for Environment and Development (IIED), and funded by the UK Department for International Development (UK-DFID). The project has targeted district authorities in Longido, Monduli and Ngorongoro with capacity building and institutional strengthening to develop knowledge of climate change in dryland ecologies and to enhance development planning.
- Oxfam’s Pastoralism Programme, managed by Oxfam and funded by Irish Aid. The programme funds pastoralist Civil Society Organisations (CSOs) to support planning for disaster risk reduction and efforts to secure equitable rangeland governance and management. Funding was also provided for pro-pastoralist advocacy.

The paper will set out the successes and respective learning emerging from the experiences of all three programmes. Beneficial impacts to the adaptive capacity of target groups will be identified, with overall lessons drawn from the forms of implementation used. The lessons learned apply to those interested in adaptation for pastoralists in Tanzania as well as climate change adaptation mainstreaming more generally. A range of learning will be drawn from successes at village, district and national levels, using methods as diverse as local land use planning to international advocacy.

Section 1 introduces the purpose of the study. Section 2 explains the methodology used to structure inquiry into each programme. Section 3 overviews the existing policy, legislative, institutional and planning environment for pastoralists, as well as overlying factors that are driving on-going vulnerability in Tanzania. Section 4 presents the case studies, highlighting project approaches and key learning from each project. Section 5 draws conclusions from the case study experiences. Section 6 gives highlights of how these conclusions can contribute to further planning for support to programmes that engage with pastoralism and mainstreaming climate change adaptation.

2.0 Methodology

An “Appreciative Inquiry” approach was used to generate learning from activities adopted by the case study projects. Appreciative Inquiry seeks to uncover “the best of what is in order to imagine what could be” (Bushe, G.R., 2013). The inquiry generates qualitative data through sharing of positive personal experiences of project processes, activities and resulting changes, and probing into the conditions, skills and resources that created them. It “involves, in a central way, the art and practice of asking questions that strengthen a system’s capacity to apprehend, anticipate and heighten positive potential.” (Cooperrider & Whitney, 2005)³.

The process began with a documentary review of proposals, reviews and reports relating to each of the case studies. The review highlighted the range of approaches being used to integrate climate change into development planning and theories of change that support pastoralist livelihoods. It further helped to shape inquiry into how programmes are improving resilience, and the extent of integration of climate change into planning.

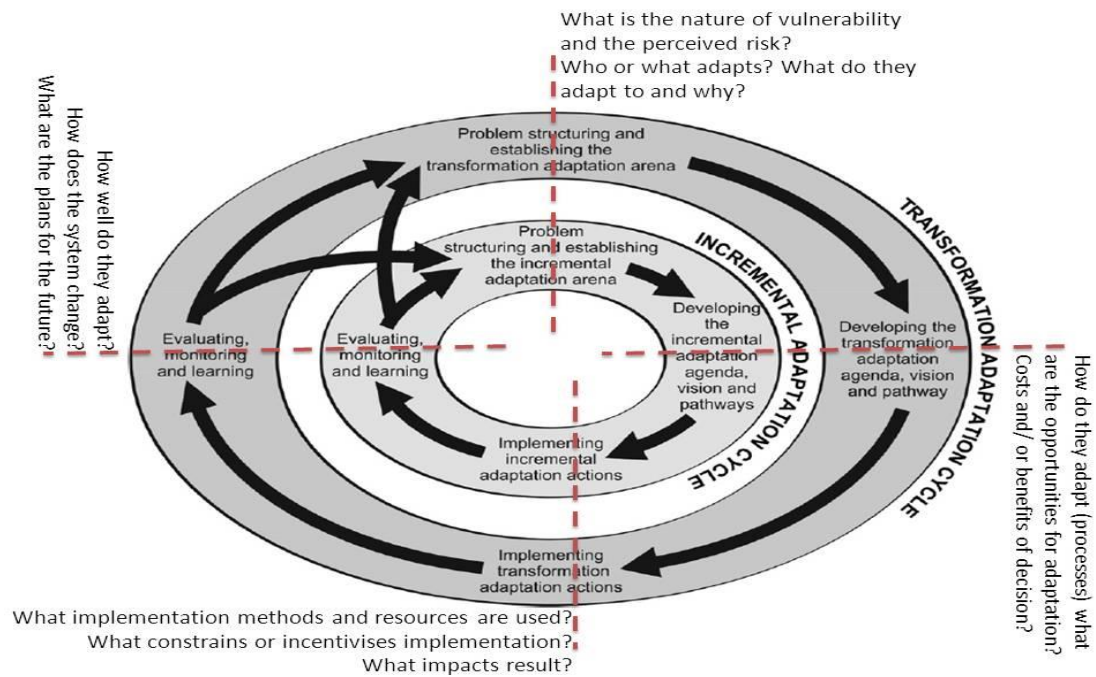
To better understand the projects, the study team visited a sample of implementing local and national CSOs performing interviews and guided focus groups with project staff and their local beneficiaries. Where possible, the team met with extension workers and government planners from the relevant district councils. Sample choices were limited by the time available for the study, however, the team visited beneficiaries from both pastoralist and agro-pastoralist backgrounds across arid and semi-arid ecological zones. Findings on the IIED project drew on a recent learning review based on interviews with a wide range of project stakeholders. A full list of interviewees is listed in Annex 1.

During focus groups, participants were facilitated to develop theory of change diagrams to demonstrate how project activities had led to particular outputs, outcomes and impacts. These provided a basis for further questioning on the factors supporting these changes, the perceived improvement in adaptive capacity and the proportion of local people experience the benefits.

Analysis of the integration of climate change into planning was guided by the Tracking Adaptation and Measuring Development (TAMD) framework. TAMD is a monitoring and evaluation framework that enables tracking of the quality of climate risk management within institutional settings as well as impacts on the resilience and overall development of beneficiaries. To support this, TAMD offers a series of indicators which can be modified depending on their context.

Inquiry and analysis has also been guided by the Adaptation Action Cycles framework (see Fig.1), proposed to assess and understand more about both incremental and transformational adaptation. Incremental adaptations tend to be reactive to threats, are often autonomous, and involve small extensions or modifications to existing activities. While they can be effective, they risk being insufficient or maladaptive in the long run. Transformational adaptations change the existing system to tackle the root causes of

³ For further explanation of Appreciative Inquiry, see <https://appreciativeinquiry.case.edu/intro/whatisai.cfm>



vulnerability (Anderson, S. 2014).⁴ The framework provides a set of questions to gauge context, requirements and methods and impacts of adaptation interventions. It then encourages consideration of whether a project is transformational in approach.

The study team consolidated the data, drawing out key learnings of each program, commonalities in causation and positive change running across all three project experiences. These were presented and discussed at a validation workshop consisting of representatives from the Government of Tanzania, donors, managing and implementing partners (See Annex 1 for a full list of participants).

2.1 Study Limitations

Appreciative Inquiry generates learning from positive experiences of project outcomes and processes. It uses focus groups and personal interactions to uncover key information. As such, it is useful for helping an organisation or project to develop in a direction that plays to its pre-existing strengths. In doing so, it has less scope to analyse factors that constrain successful outcomes, or threaten them in the future. On going problems that were discussed are not the basis of analysis, and therefore are not presented in detail in this paper.

Findings are based on the experience of recent, short-term gains. Most of the projects visited have been implemented for less than three years, with the period of analysis during field visits dating from project inception onwards. It has therefore been difficult to identify long-term factors (governmental, ecological, socio-cultural etc.) that might also be bringing change to the community. Similarly, there is little scope for understanding the long-term consequences of activities in a community, nor the sustainability of positive impacts.

⁴ For further discussion on types of transformational adaptation see Kates, R. et.al (2014) (Accessed: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3358899/>) and Anderson, S., (2014)

3.0 The Development Context for Pastoralists in Tanzania

To understand the approaches taken by Care Tanzania, TNRF, IIED and Oxfam, it is important to understand the broader context they are operating in. This section will briefly overview the most prescient aspects of policy, legislation and planning relevant to climate change and pastoralism. It will argue that much policy on livestock development and pastoralism has in the past been vague or contradictory. Meanwhile, other more dominant policies are having knock-on, negative affects on pastoralist livelihood strategies. This section will then overview some of the common factors driving vulnerability of pastoralists, pointing out population growth, encroachment onto traditional grazing lands and the role of climate change in the pastoral context.

3.1 Policies on Climate Change and Pastoralism

Policies referring to pastoralism have often been vague or contradictory. “Tanzania Development Vision 2025”, Tanzania’s long-term strategy document, licenses affirmative action to support traditional populations. These would include groups such as pastoralists (Maasai, Barbaig, Sukuma and others), but it is unclear how this support is to be rendered (URT, 1999 p.17). On the other hand, more dominant short and medium term sectoral policies have placed modernisation, commercialisation, destocking of indigenous cattle and expansion of crop farming at the heart of agricultural policy. This has had - and continues to have - negative impacts for the practice of pastoralism on the ground. As policies supporting farming and sedentary livestock keeping have taken precedent, the enabling environment for pastoralist livestock strategies based on mobility and flexible planning have diminished. At all levels of government, misperceptions about the sustainability and economic contribution of pastoralism continue to guide decisions of central government planners. Consequently, pastoralists find that institutional and policy environments are insufficient to support their needs, threatening the continuation of their livelihoods and sustainability of their mode of production.

3.1.1 National Environment Policy (1997)

The National Environment Policy (1997) is the basis for legislation on environmental management in Tanzania. The strategy notes the need to reduce land degradation, pollution and deforestation. It promotes “management and control of the migration of livestock”, whilst at the same time pointing out the rights of local people to participate in land management. The policy therefore contains internal contradictions. In the context of pastoralist production systems and adaptation strategies based on flexible mobility of livestock across large areas of land, genuine pastoralist participation would advise against moves to control livestock migration. In practice, land management at the local level has rarely been completed due to lack of skills or funding.

3.1.2 The Environmental Management Act, 2004

The Environmental Management Act (EMA) of 2004 provides the legal and institutional framework for the sustainable management of the environment in mainland Tanzania. It includes compliance and incentive mechanisms for environmental management at levels of

governance from the national level to village level. It involves district and village representatives in the management of environmental resources and enforcement of the law. The EMA empowers local actors to manage forest resources, and the Prime Minister to take action on climate change.

3.1.3 National Adaptation Plan of Action (2007)

More climate specific policy was not developed until the National Adaptation Plan of Action (2007). While mainly focused on adaptations in crop farming, the plan promoted “zero grazing” of livestock, a method that directly contradicts the strategy of mobility to access resources used by pastoralists in highly variable environmental conditions. There is little evidence to suggest that these recommendations were put into widespread practice. However, the plan demonstrates either misunderstanding or unwillingness to support pastoralist livelihoods and adaptive strategies, as they currently exist.

3.1.4 Policy Framework for Pastoralism in Africa 2010

The African Union policy framework for pastoralism articulates issues relating to pastoralism in each of the five regions of Africa, bearing in mind diversity and capitalizing on similarities. It touches upon, among other issues, land loss and poverty, conservation of genetic resources, food security, and use of ICT among pastoralists. The policy sets new trends in recognizing economic contributions of pastoralists as well as their rights. The policy sets down two main objectives.

- 1) Secure and protect the lives, livelihoods and rights of pastoral peoples and ensure continent-wide commitment to political, social and economic development of pastoral communities and pastoral areas;
- 2) “Reinforce the contribution of pastoral livestock to national, regional and continent-wide economies.”

The policy supports the inbuilt resilience and adaptation mechanisms that are a key part of pastoralist livelihood strategies. It also raises two important issues often overlooked by policy makers in Tanzania, namely protection of genetic resources and cultural practices of pastoralists. However, it is questionable to what extent the policy has been fully incorporated in practice in Tanzania.

3.1.5 MKUKUTA II (2011)

A broader strategic focus on climate change came about in 2011 through development of the second iteration of the National Growth and Poverty Reduction Strategy, known as MKUKUTA II. Goal 4 supports “Ensuring Food and Nutrition Security, Environmental Sustainability and Climate Change Adaptation and Mitigation” (URT, 2011 p.58). Strategies for achieving this goal focus on modernisation and commercialisation of agriculture as a route to economic growth and food security. Introduction of new seeds and development of disaster risk reduction strategies are promoted. In the corresponding five year plan for implementation of the strategy, this theme continues. Vaccinations of livestock and commercialisation of the meat industry are the focus, while land issues are devolved to local authorities (URT, 2011a). Freedom or security of mobility for livestock does not feature in either MKUKUTA II or the five-year plan.

3.1.6 National Climate Change Strategy (2012)

More recently, the National Climate Change Strategy (URT, 2012), supports both traditional and modern knowledge for livestock development, and explicitly supports “improved traditional livestock keeping systems” and “sustainable pasture and range management” (ibid p.55). These statements would suggest the beginning of a more progressive approach to livestock keeping. The formal recognition of traditional livestock keeping systems represents a positive step for pro-pastoralist policy. However, the strategy is broad and vague on the details of its implementation.

3.2 Sector Specific Policies – Agriculture, Livestock and Decentralisation

Recent drives towards achieving Vision 2025 through the “Big Results Now” (BRN) and “Kilimo Kwanza” (Agriculture First) initiatives have expanded the focus on commercialisation and modernisation of crop based agriculture and sedentary livestock keeping. BRN highlights six focuses for funding, emphasising clear target setting and coordination for implementation. Regarding agriculture, increased crop yields through irrigation, investor-led large scale farming and other modernisation programs have dominated. Traditional or pastoralist livestock keeping is not recognised. In addition, Kilimo Kwanza has put modernisation and expansion of crop production at the centre of government agricultural policy. Policies which incentivise crop based agriculture have encouraged encroachment of both small and large scale farming operations into lands traditionally used for grazing by pastoralists (personal communications with CEDESOTA, 2015) have continued apace. Loss of areas for grazing in recent years has accelerated as a result.

3.2.1 Livestock Development Policies

Livestock development faces significant hurdles. Of the 60m hectares ideal for grazing, 60% are infested with tsetse flies, believed to be an impact of climate change. As the land available for grazing has decreased, the cattle and human population continues to rise (MoLDF, 2015).

The emphasis for livestock development has been to commercialise and modernise to grow the domestic meat production industry. This has been accompanied by moves to establish ranching and zero grazing models of livestock keeping (URT, 2010). A major concern of the livestock sector regarding pastoralism has been conflict. Policies dating back several years continually reference the threat of conflict brought by pastoralist tendencies towards livestock migration (IIED, 2006). Recent strategies therefore point to the need for “secure land tenure rights”, as well as secure ownership of grazing areas through either legal or traditional procedures (ibid. p.3). It is hoped that this will satisfy pastoralist resource needs and prevent conflict through over communal grazing lands. However, the policy does not take into account the nature of variability of rainfall over time and space each season, common to arid and semi-arid lands. Such variability necessitates flexibility and movement to maintain herds in the long term. Secure access to fixed land areas may therefore bring increased risk to livelihoods, as without rain in these areas they have little use. While attempts to reduce conflict are necessary, it is important to address them in a way that incorporates pastoralists productive needs and restores cooperation between farmers and livestock keepers.

3.2.2 Devolution By Decentralisation

Tanzania has implemented a policy of decentralisation by devolution (D by D) since 1998. In theory, it makes local government authorities “primary and accountable lead actors of socio-

economic development” (URT 2009 p.(i)). This should give district councils the power to make decisions relevant to the particular livelihoods and ecological environments in which they are based. However, these reforms have stalled in practice, with government documents noting that some centralised sectors are reluctant to devolve powers to the local level (URT 2009 p.7).

Legislation surrounding the devolved management of land is particularly disputed. While management of land was recently devolved to local government authorities, older legal frameworks clash with new policies. The Village Land Act (1999) and the Land Use Planning Act (2007) give village assemblies (representing the community) decision making power on land ownership within the village. However, local governments control approval of communal land ownership of grazing and reserving areas. In practice, district and village governments can limit communal access rights and have allowed investors to demarcate and restrict access to newly privatised areas of land. Personal communications with participants in several villages highlighted that governments had changed administrative boundaries and reclassified grazing lands without prior consent or participation of pastoralists.

Devolution has therefore offered a range of both opportunities and threats to pastoralists, particularly on issues such as land allocations, usage and the quality of government service provision.

3.3 Planning at District Government Level

Whatever the problems of decentralisation, district authorities play an important role in local planning and budgeting. The district is responsible for uncovering local priorities and directing resources towards them. In doing so, the district must also balance the demands of national initiatives such as MKUKUTA II, Big Results Now and Kilimo Kwanza.

Annual district planning and budgeting begins with facilitation of a participatory research process called Opportunities and Obstacles for Development (O&OD). O&OD was developed to assess major development challenges in rural areas and generate local solutions. Ideally, it places communities at the core of the planning process. However, the implementation of O&OD often misses or undermines pastoralist priorities. In some areas, budget constraints prevent O&OD from being fully implemented annually. Participatory audits of the process, summarised in IIED (2015), note the following:

- Planning is not aligned with seasonal change or variability. O&OD and the subsequent development of village plans and budgets takes place between January and April. The prioritisation of investments takes place in June, while actual investments are not made until November or December. Due to the unpredictable, variable nature of the seasons common to dryland zones, the situation for pastoralists may have significantly changed in this time, making plans irrelevant.
- Tools used in O&OD are weighted towards assessing agricultural livelihood strategies, focusing on farming rather than pastoralist dynamics. There are few opportunities for pastoralists to explain the specific rationale behind their own livelihood strategies or their resource use over time and space.
- O&OD makes the village the spatial scale of analysis. Pastoralists tend to plan and operate across much wider spatial scales. This causes incompatibilities and misunderstandings of genuine local needs.
- The process itself is often rushed and poorly administered. In practice, O&OD is administered by a small team and the Village Executive Officer, without capacity to

ensure effective participation. Often, executive officers are left to finish writing up the process themselves, effectively given them the lead voice in deciding community priorities.

Consequently, the O&OD process is often inappropriate for use in areas where significant parts of the economy and large numbers of villages are dominated by pastoralist livelihood strategies.

After completing O&OD, the district faces further complications. Rural districts receive most of their financing from central government in the form of seven grants (inter-fiscal transfers). The grants, normally associated with particular sectors, are issued with strict guidelines, directing spending towards addressing national priorities and indicators, in particular the five year plan, BRN and Kilimo Kwanza.⁵

Formal planning, local priorities and customary or traditional planning strategies are therefore permanently out-of-sync. Local government authorities do not have freedom to support the flexibility of movement and natural resource management used by both pastoralists and farmers.

3.4 Village Governance

Most of the CSO's funded by Care and Oxfam have focussed on capacity building of village institutions. It is there worth outlining how these institutions function.

Village Assembly

The village assembly is highest authority of the village institutions, but requires the village council to function effectively. It is composed of all adult village residents, holding a minimum of three meetings each year, with more usually necessary to approve village council decisions. The assembly plays a key role in the Opportunities and Obstacles for Development. It also approves land transactions and changes in ownership, managing natural resources within village lands.

Village Council

The most active village institution is the village council. Its 25 members are elected every five years during local government elections. Village Councils have an elected chairperson and an appointed secretary known as the Village Executive Officer. Councils meet minimum of four times each year, with frequency depending on local development issues. Village extension officers and retired staff may also participate in village council meetings. The council is responsible for village land and environmental management, proposing land transactions and ownership changes for approval. It may, with the approval of the village assembly, enact and enforce by-laws to support its ability to do so. Councils can, with assembly approval, appoint sub-committees on key issues such as land and environmental management.

Village Land Tribunals

Land tribunals are composed of 7 village members, including no less than 3 women. Their role is to arbitrate land disputes within the village. If cases cannot be settled, they may refer them to higher levels of adjudication (ward and district tribunals, or national courts). Members are nominated by the village council for approval by the assembly. Assemblies have power to change candidates if deemed necessary.

⁵ For a more detailed overview of the gaps between district government and customary planning strategies, see Msangi et.al (2014).

3.5 The Nature of Vulnerability for Pastoralists

While caution should be exercised in generalising problems faced by pastoralists across a range of districts, the same constraints to livelihoods were expressed by community members in all of the sites visited across all three programmes. Loss of land to investors (“land grabs”) or smallholder farmers, poor government policies and capacity, and the changing nature of rainfall patterns are generally seen as the main drivers of vulnerability.

3.5.1 Problems Associated with Land

As already noted, pastoralists depend on availability of resources such as good pasture, minerals and water sources to maintain health and productivity of livestock. In arid areas where rain falls with wide spatial and temporal variability, freedom of mobility is key to accessing resources and adaptation to a changing environments. Pastoralists have developed customary institutions to monitor available resources and manage sustainable usage. During local shortages of pasture, negotiations can be made with those in other areas for access to their resources. Therefore, the greater the accessible land area, the more potential resources are available, the better chance pastoralists have to maximise productivity and reduce losses during periods of shortage. This is realized through planned and coordinated mobility.

At present, overlapping processes are combining to reduce the area of land available as well as access to that which remains. Rapid population growth, strategic government support for sedentary agriculture, and incapacity of local governments and pastoralists to effectively manage land are limiting access to vital resources. The impacts of climate change, are exacerbating these issues, threatening the sustainability of pastoralist livelihoods.

Population Growth

Tanzania’s population has doubled from 1990 to the present day, and continues to grow at a rate of 3% (World Bank, 2015). Much of the population remains in rural areas, depending on mainly on subsistence crop farming and sedentary livestock keeping. The increasing numbers of those requiring land for cultivation is placing pressure on the availability of land, once an abundant resource. This ongoing process is acknowledged by local communities, with many elderly contributors pointing out their changing experiences of the numbers of people using the land in their lifetimes, and their destructive impact on the environment.

Agricultural Expansion

For Tanzania’s rural population, subsistence farming is the first strategy for maintaining a farmers’ livelihood. Those seeking land are usually freely able to begin cultivation on areas of common land – the same areas typically used by pastoralists for maintaining pastoralist livelihoods. Focus groups in Kiteto pointed out that migrants travel to areas traditionally dominated by pastoralism due to the abundance of fertile land available, undiminished by previous farming efforts. The collective impact of a rapidly growing population claiming common land for farming is reducing the area for grazing and undermining sustainability of water sources as they are redirected for hand-dug irrigation.

The problem is more acute when farms encroach onto livestock routes that may be well known to pastoralists but not to migrants from elsewhere. Livestock routes secure a clear path to grazing areas, minerals and water sources, often reserved by pastoralist

communities for use at specific times of the year. They lead to key water sources, minerals or chart paths through urban or agricultural lands. Blocked routes force pastoralists to go through existing farms or detour around them. The longer travel times are critical when livestock are weakened by drought, increasing livestock mortality. Travel through farms that block livestock routes cause discontent and are a key source of land use conflicts.

The drive towards modernisation and commercialisation of crop farming is lending itself to support for investor-led medium to large scale farming operations. Establishment of such operations removes significant areas of land from use by pastoralists, generating conflict with the government and further straining livelihoods.

Land use Conflict

The competition for land or preserved livestock routes causes occasionally fatal conflict. In their search for pasture, pastoralists are known to cross farms, trampling crops or allowing livestock to graze. In turn, farmers are frustrated by reduced yields, income and ability to subsist. Between individuals, competition for more fertile or more productive areas of land can be fierce, particularly between pastoralists looking to diversify their income through cultivation of crops. Conflict is then reinforced as policies and national development plans that do not incorporate pastoralist needs fuel competition for land and result in further conflict.

For many pastoralists, a more significant problem is that of investors purchasing large areas of land in circumstances that pastoralists feel are beyond their control. These deals are seen as “land grabs”, and are responsible for large scale losses of common land that had been ideal for livestock grazing. The lack of availability of land tenure to provide legal protection for grazing areas and livestock routes is believed to pave the way for land grabs and encroachment onto traditional grazing territories. The problem is further exacerbated by the population growth and expansion of towns and other economic activities. Pastoralists have come to believe that lands they have utilised for years are being illegally sold off or legislated away without their consent.

Expansion of Land for Conservation and Protection

A similar process has taken place through the expansion of areas for environmental conservation and tourism. The gazettelement of national parks such as Tarangire and Serengeti has restricted mobility of pastoralists from lands that they had occupied entirely in the past. As the tourism industry grows, the threat of more lands being reserved for wildlife only increases. The introduction of Wildlife Management Areas serve as an example as they are seen to further undermine mobility and adaptive capacity of pastoralists.⁶

3.5.2 Local government Capacity

Limited Capacity of District Government

District governments do not have the capacity to support pastoralist livelihood strategies. Weak capacity is driven by lack of understanding about the dynamics of pastoralist resource use, limited resources to provide appropriate extension services, and limited scope for flexible and independent planning and budgeting. Local authorities do not prioritise or have

⁶ For critical discussion of Wildlife Management Areas, see Benjaminsen, T.A. et.al. (2013).

the capacity to implement land use planning and rangeland governance in line with farming and pastoralists dynamics.

Extension Services

Extension workers, whose role is to provide direct support and advice to pastoralists, are unable to provide a comprehensive service. Discussions with community groups and findings in resilience assessments performed by IIED identified dissatisfaction with extension workers who are seen to be running their own veterinary medication businesses as well as working for the district. When extension officers are working, their priorities are centred around advising farmers on crop prioritised by government for the year and vaccination services. Often, government priorities promote use of foreign breeds that are not well adapted to the local environment.⁷

3.5.3 The Role of Climate Change

The impacts of climate change are exacerbating these issues. Predicted changes include increased variability of and insufficient rainfall across spatial areas and over longer time scales. Changing intensity and lengths of seasons are affecting the profile of grasses available. Pastoralists perceive a reduction in rainfall that is undermining both pasture availability and the quality and capacity of water sources. It is generally perceived that the period of March-July, the long wet season, is no longer reliable. Droughts are seen to be longer and more intense, decreasing herd productivity while increasing livestock mortality.

Reduced water access is a significant threat. Without significant action, livestock mortality is likely to increase as animals struggle through long dry seasons. Reduced water supplies also mean that women, normally responsible for collecting water, must travel further to access it. This reduces time that could be spent looking after children or generating income through other sources for climate change adaptation and livelihood improvement.

Longer dry seasons or more frequent droughts are having significant consequences for pastoralists. Repeats of the severe drought taking place during 2009 destroy too many herds to make restocking difficult before onset of the next drought. It is likely that inequality across the community may increase, as fewer pastoralists are able to maintain livestock herds successfully.

4.0 How are Oxfam, Care and IIED supporting pastoralism and climate change integration?

⁷ Government promoted breeds are criticized for requiring more feed and water than is available, are susceptible to diseases and are unable to travel long distances often necessary to access water, minerals and sufficient pastures.

Each of the case studies will detail the approach taken to integrating climate risk management into planning and supporting pastoralism. The paper will highlight their chosen entry points and objectives for integration, successes and subsequent learning based on focus groups discussions and interviews. Specific projects that highlight particular processes of change will be presented using questions drawn from the adaptation actions framework detailed earlier.

There are a range of potential entry points into planning (For a full list, see Annex 2). Each project’s entry points and overall objectives are highlighted at the beginning of the relevant section.

4.1 IIED - Establishing a Devolved Level Climate Finance Mechanism

IIED – Establishing a Devolved Level Climate Finance Mechanism					
Entry Point	Who	How	Purpose/Objective	Expected improvements in climate risk management (CRM)	Expected beneficiary benefit
National plans, policies, legal frameworks	Programme Coordinator, IIED	Disseminating findings through briefings/presentations	Engage stakeholders, raise awareness, build partnerships	Integration of climate change into plans/policies,	Enabling environment for pastoralist livelihood and adaptive strategies
District government plans and policies	LGA officials (planners, heads of department), DAPCs	Training and implementation of Resilience Planning tools (resilience assessments, resource mapping)	Engaging stakeholders, building partnerships, assessing climate risks, prioritising adaptation actions	Institutional capacity building, Raised stakeholder awareness of climate change. Efficient budgeting and finance process. Improved participation	Improved extension services. Improved planning for local needs, improving resource access.
	LGA officials	Research into gaps between formal and customary planning.	Identify weaknesses in planning processes that increase vulnerability to climate change. Recommends adaptation actions that can close these gaps and support resilience planning.	Raises stakeholder awareness on climate change and customary planning mechanisms. Supports institutional integration of climate change	Improved “pro-pastoralist” planning and extension services . Recognition of traditional knowledge to create enabling environment
Community / Village plans and strategies	Village Assemblies , HKC	Election of divisional adaptation planning committees	Engaging stakeholders, building partnerships,	Enhanced public participation in planning process. Institutional capacity building	Direct engagement with district authorities. Improved accountability

	TMA	Workshops to assess quality of public climate information services quality. Creation of “indigenous forecasting groups” to share data.	Assessing hazards. Identifying adaptation measures	Institutional capacity building. Improved participation	Greater access to relevant climate information services supporting decision making on resource use.
Institutional Decision making	District M&E Teams	Training in TAMD process	Monitoring and Evaluation	Coordination, participation and institutional capacity building.	Integration of learning of advanced evaluation processes
Portfolio Screening	TMA, District Council	Climate Proofing Study of existing and potential district investments	Identifies potential climate change hazards. Identifies adaptation measures.	Integration of climate information into planning	Climate resilient investments. Protection of valuable infrastructures. Improved long term decision making

IIED supported the Tanzanian Natural Resource Forum (TNRF) and Hakikazi Catalyst (HKC) to enhance climate resilient planning of three contiguous districts in northern Tanzania – Longido, Monduli and Ngorongoro. “Institutional strengthening” through capacity building has been implemented to pave the way for resilience building investments that support resilience to climate change in areas economically dominated by pastoralist production systems. The end goal is create local climate adaptation funds that will draw down national climate funds to support climate resilient development. The fund will be directed by Divisional Adaptation Planning Committees (DAPCs) of elected community members, enhancing accountability and responsiveness to local needs. Unlike the other programmes in the study, this work is directed at entire districts as opposed to just pastoralists and agro-pastoralists. It is hoped that both pastoralists, farmers, other villagers and those in urban areas will benefit from the improvements to economies that emerge from enhanced planning and climate risk management.

“Institutional strengthening” started with a one year preparatory phase that assembled “district learning groups” to engage with pastoralism, climate change and the appropriateness of district planning. Learning groups consisted of stakeholders from district government, traditional leaders, communities and community-based organisations. Activities included:

- Research on district planning and budgeting and the gaps between customary and formal planning processes. Led by district staff, the research revealed how gaps in planning are enhancing vulnerability to climate change⁸.

⁸ For the full report, see Msangi et.al (2014).

- Training on climate change in dry land ecologies and pastoralism (known as “The Pastoralism Training”). Using a participatory pedagogical approach and recent research, training brought together pastoralists, technical staff from government agencies (e.g. TMA, NEMC), district leaders and sector ministry staff for learning and sharing of perspectives.
- Participatory resource mapping in Longido, supporting pastoralists to articulate their resource use to district planners, creating maps that support land use planning.
- A final workshop, in which participants synthesised learning and developed a longer-term plan for continuation of the project.

The next phases of the project worked under four outputs, focussing on developing district planning systems and tools and laying the groundwork for a devolved climate adaptation fund:

1) Establishing devolved level climate finance mechanisms (known as Climate Adaptation Funds (CAFs))

The CAF is a discretionary fund managed by elected DAPCs. Funds will be held by district government authorities but managed and prioritised by DAPCs. The CAF model’s advantage is its transparency, flexibility and its provision of funds for projects identified through a participatory, resilience led planning process. The discretion offered to DAPCs to prioritise and implement spending increase the likelihood of investments that will effectively build resilience. It should also sidestep the problems faced by district governments of strict guidelines on spending. Activities included a legal assessment of potential modalities for the fund and a financial capacity assessment of each district to gauge their ability to manage external finance to the standard required by DFID and IIED.

2) Development of plans for “public good” investments promoting climate resilient growth.

The main activities under this output sought to enhance participation of community stakeholders in the planning process. It also aimed to introduce resilience planning into district prioritisation of spending. Activities included:

- Election (by village assemblies) and training of DAPCs. DAPCs serve as focal points for community engagement and managers of the CAFs.
- Traditional leaders meetings to improve collaboration of communities and reduce conflict across districts and make more forceful requests of district government.
- Enhancing the participatory planning process, O&OD, through development and training of district planners on resilience assessments (RAs) and digital resource mapping. RAs offer a shorter, cost-effective and resilience-based approach to participatory planning. RAs place existing local livelihood and adaptive strategies at the heart of their analysis of local needs. Resource mapping training introduced district staff to participatory mapping techniques and digital software. Resource maps have been developed and put into use for each district.

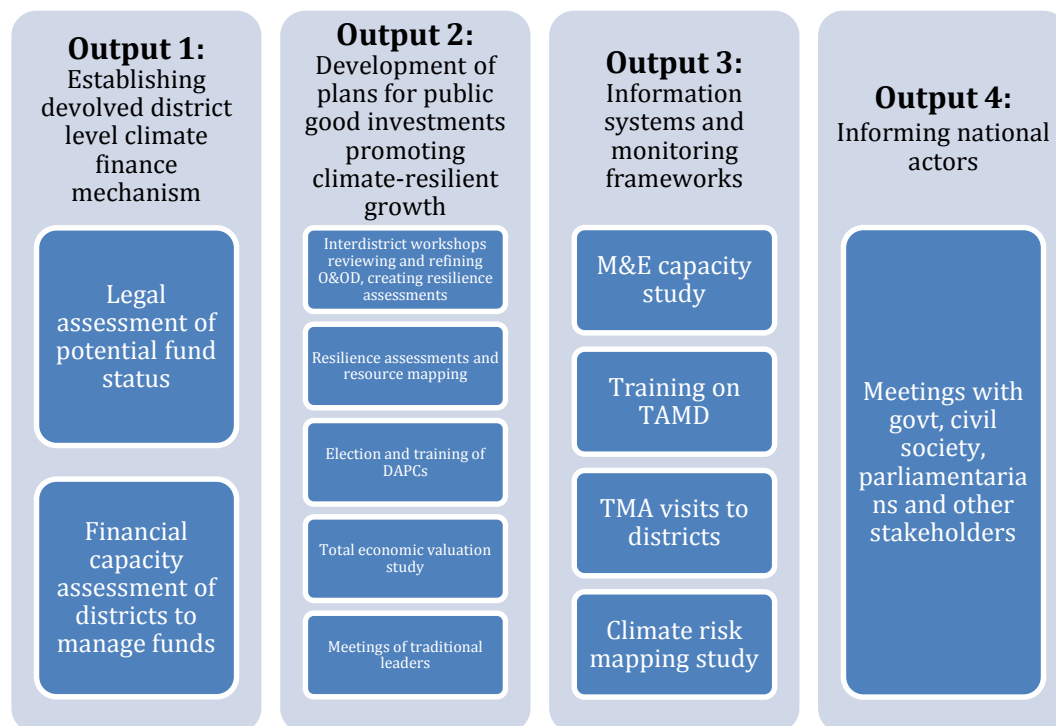
3) Developing climate information systems and monitoring frameworks

Introduction of improved climate information services (CIS) and monitoring and evaluation frameworks are key for planning investments that are effecting in the long term, and monitoring their effectiveness.

- The Tanzanian Meteorological Association (TMA) completed climate risk mapping studies drawing on community knowledge and future climate scenarios to assess risks to current district projects. They assessed potential for future investments.
- TMA researched current access and usage of existing forecasts. The workshops led to the establishment of “indigenous forecasting groups” using traditional techniques. TMA is now developing consensus forecasts based on both scientific and traditional knowledge.
- Training on the TAMD methodology to support monitoring, evaluation and learning. Each district has now developed its own M&E strategy based on TAMD.

4) *Sharing and Disseminating Learning to National Actors*

Informing national actors (government policy makers, donors) of the project findings has been used to demonstrate successes. Dissemination of project reports and studies, meetings with national climate change, livestock and local government institutions have all played a role.



4.1.1 Impacts on District Climate Risk Management

Unlike Pastoralist Project(CARE/TNRF) and Pastoralism Project(Oxfam), the main entry point has been at the level of the district. Direct investment at the level of the village will not take place until CAFs are capitalised. As such, assessing improvements in resilience at local level is difficult. However, in line with the focus of the project, successes and learning from activities to improve climate risk management can be presented. The TAMD indicators provide a framework for assessing these changes.

Climate Change Integration into Planning

All three districts have incorporated the findings of the resilience assessments into their planning and budgeting process for the year. While not all recommendations were incorporated (often due to the rigidity of budget guidelines), it is clear that local priorities are being included. Resilience assessments directly identify the nature of resilience within local contexts, and recommend investments based on local knowledge and existing adaptive strategies. In effect, investments directly into building adaptive capacity will receive government funding in the coming year.

Institutional Knowledge/Capacity on climate change mainstreaming

Capacity building has been aimed at district council chairmen, District Executive Officers, District Commissioners, Members of Parliaments(MPs), as well as planning officials. While climate change has been a key topic, there has also been a focus on the rationale behind dryland livelihoods that dominate in target districts. A context specific understanding of climate change has developed among district staff to support appropriate investments and mainstreaming. Influential activities have included:

- *Research into gaps between customary and formal planning processes.* Led by district staff, it highlighted the complex yet flexible planning systems of pastoralists compared to the annualised and rigid nature of government planning. It became clear that closing these gaps is key to supporting pastoralist adaptive capacity.
- *Participatory audits of O&OD* with district staff identified ways in which climate change could be incorporated into participatory planning. They also made staff aware of the weaknesses of the current process.
- *The pastoralism training* was crucial in helping key decision makers appreciate the sustainable productive potential of pastoralist livelihood strategies. Training on the need for mobility to access resources and pastoralist planning systems have paved the way for openness towards a new approach to district planning. Most notably, districts have agreed to pilot planning at larger spatial scales than the village. The use of the division, made up of several villages, more closely reflects the way in which pastoralists plan resource use. This represents significant incorporation of context relevant knowledge into climate resilient planning.
- *Resilience Assessments and Resource Mapping* have helped pastoralists to articulate livelihood strategies and their constraining factors directly to district planners.

Use of Climate information

TMA has supported use of climate information at district and community level. Climate risk mapping studies identified high risk and high potential areas for increased attention, based on future climate scenario planning. In one example, Samunge Valley was identified as having high potential for rice farming, and is now the subject of a program by Ngorongoro District.

Development of “indigenous forecasting groups”, has led to creation of “consensus forecasts”, combining traditional and scientific knowledge. Communities are more likely to access and trust this information. Districts have acted to support this knowledge with mobile phone broadcasting schemes. Focus groups reported that pastoralists were using improved forecasts to make decisions about livestock movements, moving to higher or lower ground depending on rainfall.

Participation

The development and central role of DAPCs means community representatives are guiding investments into development and adaptation using detailed local knowledge. DAPCs must have women's representatives to ensure that women's views are given an equal hearing. When CAF's are capitalised, the DAPC members will also be responsible for implementation of projects, putting them in a key position throughout planning and implementation of initiatives.

Awareness Among Stakeholders

Continual training and capacity building has significantly increased awareness of stakeholders on climate change and its implications. The decision to focus training on community leaders such as District Commissioners, District Executive Directors, Council Chairmen and other key staff has led to their introducing climate change to the agenda of local meetings on a regular basis. This has been one way of seeing information and learning about climate change introduced at village council level. In turn, there has been a growing understanding of climate change at community level. The study found that communities were beginning to change behaviours and practices; some villages have independently enacted by-laws to protect local forests and reduce environmental degradation.

“The training on pastoralism has been a gift. The art and science of developing the training and implementing it has influenced the thinking and minds in a positive way. It has made a big difference for advocacy. The most significant impact has been at the local government authorities as it has brought local and district authorities together to work hand and hand. It has changed the landscape once and for all” (Alais Morindat, Project Coordinator)

4.1.2 Generated Learning

Interviews with project stakeholders have drawn out learning that identify why the project has been well received and the most effective aspects.

Broad Participation – The inclusion of stakeholders from pastoralist communities from local through to national level staff brought individuals together who are not usually in regular contact. Regular meetings of district learning groups established a network of individuals with a new common vision for local development, in personal communication with each other. This enabled sharing and increased understanding of perspectives that were previously misunderstood. This has laid the foundation for acceptance of new ideas and processes such as resilience assessments and divisional scale planning. Ensuring widespread participation has encouraged ownership of the process of change at district level. District staff have been central in identifying problems and planning the next stages of the project.

“The [livelihood dynamics] tools are very good because they directly address climate change issues, while O&OD is very general and does not necessarily identify adaptation needs. This project is strong because it has involved all stakeholders. If strong accountability guidelines can be implemented then an adaptation fund could really do something good at the local level” – Participant, 2nd inter-district workshop on planning tools

District Leadership - Participation and leadership of district staff has supported national and local acceptance of activities. District staff led on researching gaps between formal and customary planning processes, identifying problems in O&OD, and in facilitating resilience assessments and resource mapping. This has given the outcomes more legitimacy, helping to gain support and interest at national level. They have also provided a solid basis for critiquing the current planning system to higher levels of government.

Upstream Investments – The work has demonstrated the impact of making investments in capacity building before focusing on the community itself. Changed perceptions and introduction of new processes “upstream” have led to uptake of new approaches to participatory prioritisation, to the benefit of communities. One notable example is the heightened understanding of the need for land use planning.

Resource Mapping: Resource mapping is an effective tool for facilitating land use planning that enhance sharing of resources across administrative boundaries. It increases understanding of pastoralist resource use, providing tools to support district wide planning.

Gradual Approach – The project has taken some time to develop, starting with one years preparatory training before developing into activities under the four outputs. District leaders in particular pointed out the advantages of the gradual approach taken. Taking time to validate findings of research, consult all stakeholders as well as pause and allow time for changes to become embedded was greatly valued.

4.1.3 Transformational Potential

The project has been well received by both target district authorities and national bodies. TAMISEMI has agreed in principle to scale-up the project across a further nine districts in Tanzania, and the initial pilot districts and their communities are keen to establish and capitalise the devolved climate adaptation funds.

IIED’s work has so far focused on enhancing the way in which the district government staff understand, plan and budget for pastoralism. In doing so, it has made tentative progress on a range of TAMD indicators, including increased participation, inclusion of climate information and climate resilience into planning. The direct engagement of pastoralists with district planners and key decision makers through the pastoralism training, resilience assessment and resource mapping has had tangible impacts on the way in decisions are made. Collectively, these are going a long way to improving the enabling environment for pastoralism in the target districts.

However, national level policy on agricultural development remains unchanged, as does the rigidity in district planning. The inability of districts to remain free to plan for uncertainty, or incorporate risk into their budgets, is a major stumbling block to a transformation of the enabling environment.

While it remains to be seen if these changes will “bed in”, it is clear that the project is bringing improvements. Climate change is in the early stages of being incorporated into a wide variety of district activities. The capitalisation of the local level Climate Adaptation Funds will continue to take this process to the next level, placing pastoralists at the heart of planning and implementing adaptation activities.

4.2 Care/TNRF (Pastoralist Program)

Care/TNRF – Pastoralist Program Overview					
Entry Point	Who	How	Purpose/Objective	Expected CRM Change	Expected beneficiary benefit
National plans, policies, legal frameworks	TNRF, partner CSO's, Govt.	Advocacy through media campaigns, training and policy dialogue with MPs, communicating evidence based information, TV and radio; Enhancing public dialogue; engaging international pressure. Training on pastoralism/climate change	Establish Enabling Conditions, Engage stakeholders, raise awareness, build capacity and partnerships, change attitude, behaviours and practices	Integration of climate change into plans/policies, support for policies which enable customary pastoralist adaptation measures	Enabling environment created support for mobility and community led adaptation measures, supporting productivity and adaptive capacity
District government plans and policies	CSOs, District extension officers	Engaging local government staff and extension officers in and through training and dialogues	Capacity building, stakeholder awareness raising and partnership building. Identifying measures for adaptation	CC integration into planning, institutional capacity building, participation,	Improved extension services supporting productivity
Community / Village plans and strategies	Village Development institutions	Training and capacity building on land rights, land use conflict, resolutions, human rights , gender rights, climate change	Establish enabling conditions, Engaging stakeholders, building partnerships, identifying risk management and adaptation measures, implementing adaptation,	Climate change integration into planning. Institutional capacity building, participation	Improved adaptive capacity through resource access. Reduced environmental degradation and enhanced resource management

The Pastoralist Program seeks to “reduce poverty and vulnerability of pastoralist communities in Tanzania through advancement of pastoralist men and women’s rights to a

sustainable livelihood.” Since inception in 2012, it seeks to do so through contribution to delivering the following impacts.

- Improved laws and policies that support pastoralists
- Improved service delivery of local government authorities
- Improved capacity of civil society organisations
- Improved livelihoods for pastoralist men, women and children

After a mid-term review, the programme was refocused to deliver the following impacts:

- Improved policies and laws that respond to the needs and demands of pastoralists
- Increased responsiveness of National Government Agencies and LGAs to deliver quality veterinary and extension services to pastoralists
- Improved national and local CSOs service delivery in addressing pastoralists men and women practical and strategic needs
- Increased adoption of climate adaptation and mitigation strategies and/or practices among pastoralist men and women
- Increased participation of pastoral women in decision making processes and ownership and control of land and cattle in the program area

The project took a two-pronged approach to supporting adaptation. First, it provided funding and capacity building to pastoralist CSO’s to better design and manage projects. Second, it supported national level advocacy NGOs to lobby for an improved enabling environment for pastoralist adaptation and development. Throughout, there was an emphasis on the need for gender equality in participation and a focus on women’s rights.

4.2.1 Community Level Engagement

Training and capacity building workshops were held for CSO’s receiving funding and their networks to enhance their institutional capacity. CSO projects predominantly focused on facilitating training for village institutions and community members on climate change, pastoralism, gender mainstreaming, land rights, land use planning and resolving land use conflict. The intended outcomes were repeatedly highlighted as reduced conflict, increased resource access, ownership and control for pastoralists, and gender equality and representation for women in decision making organs.

Trainings on Climate Change – Aimed at village councils or village environmental committees, trainings explained the scientific basis and causes of climate change, and encouraged discussion of adaptation initiatives for the local area.

Trainings on Gender mainstreaming and rights – Introducing village committee members and women from the community to women’s legal rights, including participation in decision-making for and contesting for leadership positions. In some districts, this focussed on the rights of women to participate in community development projects, take community leadership roles, and to access and own resources (household assets, businesses, etc.). Other implementing CSOs focused on women’s rights to own their own land and livestock and other assets.

Land rights, Land use planning and conflict resolution– Training on land rights had two aspects.

- Training on rights and laws surrounding individual land access, ownership and control. These are closely linked to gender rights, since women are often denied access to land despite their legal rights of access
- Training on and facilitation of land use planning and conflict resolution. This can involve securing village boundaries, demarcating different areas of usage, and negotiation techniques. These trainings have also tended to facilitate negotiations between villages over reciprocal rights of access to shared resources valuable for both communities.

Some implementing CSOs such as HUDESA included land use conflict resolution (mediation) as part of their training for village land tribunals and village councils, supporting fair adjudication of cases and careful note-taking to allow for due process to be observed. Consequently, land disputes are being resolved locally, reducing the need to travel long distances to higher level courts. As a result, corruption is reduced and local rights are better enforced.

District Engagement - Several CSOs projects engaged district councils as partners in project implementation. Typically, council planners and/or extension officers were trained in climate change and related issues (sometimes using National Environmental Management Council as a trainer), and were then supported to train village councils or environmental committees and create awareness within the target community. This increased engagement of the district with pastoralists and contributed to building institutional capacity. Other approaches included “dialogue days” between communities and the district, broadcast on the radio, and ensuring that local people were included in public consultations on the planning process.

4.2.2 Climate Risk Management Outcomes

The focus of training at community or village level restricts potential for significant changes in climate risk management within district institutions. While villages have some responsibility for planning, they are heavily dependent on financial and technical support from district authorities. That being said, village councils have shown willingness to respond to project activities by taking action where possible. In addition, district councils have been incorporated into activities through training, or facilitated to support land use planning. As a result, communities report a moderate increase in adaptive capacity driven by healthier livestock and higher household incomes.

Awareness of Climate Change Among Stakeholders

Training on climate change and awareness creation has not only improved local knowledge but led to tangible efforts to adapt. Typically, training on climate change led to the topic being raised at village assemblies to share the knowledge with the wider community. Similarly, the village government and community members took efforts to reduce deforestation and environmental degradation through enforcement of by-laws and appointment of community watchmen for monitoring and enforcement. In projects where District Extension Officers had been capacitated to train the community, their training has improved their own awareness and capacity to incorporate and consider adaptation to climate change in other activities instituted by district council.

Institutional Knowledge and Capacity Enhancement

Institutional knowledge has been improved through greater engagement of district staff with pastoralists. Projects involving land use planning and resource mapping have given pastoralists opportunities to understanding their available natural resources and explain their land use needs to district staff. In other cases, support for district staff to train communities on climate change and adaptation methods has increased their own knowledge. One extension officer reported applying the knowledge learned from pastoralists in another village outside the project area.

“The district government has learned much more about the pastoral management system. We have begun to place markers to support the way that pastoralists use the land. Previously, we put much more focus on animal husbandry and not climate change. Land use is a much more prominent feature of our work now, as well as climate change.”
– Extension Officer, Kiteto District Council

Participation

Participation has been enhanced through direct involvement of community representatives in training, awareness raising and land use planning. With land and resource access a key part of pastoralist livelihood strategies, public participation in mapping resources and planning land use are particularly valuable. Activities which support direct dialogue between local people and the government can also have an impact. A radio broadcast dialogue event run by HUEDSA encouraged greater pastoralist engagement with the planning process and has contributed to a larger budget being allocated for chaco dams in the area. Almost all the projects visited had successfully engaged village land councils and/or the district in participatory land use planning of some form, leading to demarcations of key grazing areas and livestock routes.

4.2.3 Improvements in Community Resilience

Resilience is typically associated with ownership of productive assets such as livestock or land. Ownership of livestock is seen to act as both insurance and bank, with households selling livestock in the event of drought to support themselves, or maintaining enough livestock throughout a dry season to rebuild the herd after a drought has ended. Ownership of land is valued for similar reasons, although land is typically rented out during a lean period rather than sold. In addition, access to resources such as grazing land and water are an important aspect of resilience.

Increased access to resources

One of the significant drivers of perceived improvements to resilience was training and implementation of land use planning. Planning had led to demarcations of grazing and cultivation areas with trees or beacons. By-laws were enacted, supported by district councils, to prevent establishment of new farms by smallholders at grazing areas and to fine and deter transgressors.

All the projects visited have recognised that land use planning at the village level is not sufficient to secure resource access in the long run. As such, processes were being enacted that allowed for negotiations for reciprocal access to grazing or water resources between villages, or for cross-village livestock routes. Such negotiations enhance the ability of customary resource management to play its role supporting access. Reported outcomes,

although tentative, are that livestock are healthier and producing more milk as a result of improved resource access. Healthier livestock are producing increased quantities of milk for sale at market, generating higher incomes and improving food security.

Household Level Adaptations

Having undergone training and awareness on climate change, a common desire among pastoralists was to begin crossbreeding of local Masai Zebu breeds with higher value Borana and Saiwal breeds. The aim is to breed high value cattle with high levels of milk production, but with the natural resilience of the drought tolerant Zebu. Crossbreeds of this sort are reported to sell for prices ranging from TSH1.5m – TSH3m – more than three times that of local Zebu breeds which only sell for TSH300,000 – TSH1m. They also produce more nutritious milk and survive well in conditions of water scarcity. The downside of this approach is that without support, gaining access to bulls for cross breeding is expensive, and only available to those who already have large herds and are already more resilient.

Training on entrepreneurship as subset of climate change adaptation initiatives has also seen concerted efforts to diversify income generation activities beyond livestock, or modify farming approaches. Beekeeping, ownership of small businesses and transition from farming of Maize to farming of short cycle crops such as vegetables, tomato, beans were all common. These diversified approaches reduce dependence on increasingly unreliable long rainy seasons. In more pastoralist backgrounds, profits from these activities were often reinvested directly into more livestock. Agro-pastoralist communities were more likely to save money in communal savings schemes.

Reducing Land Use Conflict

A key motivation for many implementing CSOs is reducing land use conflict. Such conflict concerns both disagreements between individuals over plots of land, and conflict between pastoralists and those cultivating on common land. Communities report a reduction in conflict between groups and individuals as a result of land rights and land use conflicts resolution training. Demarcations of land have given village councils and village land committees a basis on which to penalise those who encroach on grazing areas. The demarcation of livestock routes with trees or beacons has particularly helped in this regard. While routes were common knowledge to pastoralists, farmers who were ignorant of these passages lost crops to passing grazing livestock. In some areas (i.e Babati) receiving Pastoralist Program Support, by-laws have also fixed fines of 50,000 TSH/cow for pastoralists crossing demarcations and grazing in farming areas. Demarcation has reduced disagreements. However, it is also clear that competition for land is not a simple problem. Participants in the validation workshop pointed out that conflict continues to be a challenge that is reducing but has not stopped completely. In some areas, raising awareness about rights surrounding land had been enough to allow people to settle conflict between themselves, or at the very least at village level, without straining resources of a higher court.

Gender Mainstreaming and Rights

Training on gender mainstreaming and rights has had three main impacts, depending on the emphasis in a given area.

- In those areas in which women's rights to equity have been emphasised, women have begun to establish income generating activities independently. These often

included beekeeping or running small businesses, and formation of Community Saving and Credit groups. They have also claimed rights to own livestock from clan leaders. Consequently, women are gaining independence and control of household income, as well as gaining a more equal say in the allocation of household resources. Groups reported that women have a tendency to direct resources towards education of children, particularly girls, and spending on domestic needs. This was the case in Arumeru district, where CEDESOTA have mobilised women into VICOBA groups. They were enabled to access capital for establishing small business, vegetable gardens, paying education costs, renovating buildings and purchasing livestock.

- In areas where land rights were emphasised, women have also begun to claim land from clan leaders, giving them independence beyond the discretionary support they had received previously. Evidence of women's empowerment expressed this way has emerged from KINNAPA (Kiteto), CEDESOTA (Meru), as well as other districts in which the Pastoralist Programme is operating. The Kiteto focus group pointed out that everyone in the village has been allocated half an acre of land, and that this trend was taking place elsewhere. Widows and divorced women, typically among the more vulnerable in a community, have particularly benefitted from this new independence.
- Training has given women courage and confidence to seek roles on village, ward and district decision making-fora. In various districts (detailed below), the numbers of women on various committees and councils is increasing.

Typically, the process of change within the community began with training of village council members, leading to a village assembly in which the role of women in the community was formally discussed. The rapid change in gender dynamics has been explained by the fact that men are also benefitting from the increased income brought into households by women. Apart from the financial benefit, it appears that women assuming control of more income generating activities gives men more free time. . There were also claims that men were spending more time engaging in childcare.

Environmental Degradation

Efforts to reduce environmental degradation have been one of the first responses to climate change training. In part, this is due to a firm belief that forestry encourages increased rainfall –making efforts to reduce deforestation a high priority. It is also clear that some trees provide for some types of livestock, areas for beekeeping, and a range of other communal benefits. As with other interventions, new learning is enforced through by-laws that fine tree felling or prevent cutting with chainsaws. Some have also appointed communal environmental officers to monitor and protect afforested areas. In some areas, the training has, with capital from the CBO, led to individuals growing tree seedlings for sale to local people or the government.

In Gairo, HUDESA worked with a women's group of 15 to begin a tree nursery. From 2013-2015, they have doubled the amount of seedlings grown to 3000, selling the majority and making a significant profit to reinvest in bee-keeping and other businesses. The project has raised local awareness of the need to adapt income generation activities and encourage forest growth.

Differentiated Impacts

Some interventions have differentiated impacts across the community, normally depending on the number of livestock already owned. The main drivers of increased resilience were widely reported to be land use planning and demarcation of livestock routes. Within the village, these were seen to benefit those with fewer cattle more, because those with larger herds are already using well-established and well-known livestock routes that are free from encroachment. Rather, smaller livestock routes to local resources benefitted those with less livestock. As a result, these pastoralists have to travel less in the dry season, remaining relatively close to their homes, and offering more time to engage in other activities such as managing the cattle of others or digging chacadams.

Poorer pastoralists are also benefitting more from training on climate change and methods of small-scale adaptation. Training has encouraged efforts to sell livestock products, sell livestock at well chosen times during the year and join with other herds during periods of mobility for protection and security.

Wealthier pastoralists with larger herds benefit more from cross-village negotiations for reciprocal rights. Their higher requirements for resources necessitate more mobility to maintain and occasionally separate larger herds to access good quality grazing areas. Wealthier pastoralists are also more easily able to take advantage of learning from trainings. The ability to sell cattle for capital to invest in diversification of income sources, or to invest in crossbreeding to improve their animals, puts them at a significant advantage.

4.2.4 Case Study 1 – KINAPPA

The following case studies highlight some of the changes described. KINAPPA, based in Kiteto, and HUDESA, based in Kilosa, are both implementing CSO’s funded by the Pastoralist Programme through Care Tanzania. Each has taken a slightly different approach to supporting pastoralists, but with ultimately the same goal. The tables below follow the inquiry format of the adaptation actions framework.

*Case Study 1 – KINAPPA, ENGANG’UNGARE*⁹

KINAPPA - Engang’ungare	
Nature of vulnerability / perceived risk	Diminishing resource access i.e. reduced quantities of nutritious grasses for livestock, reduced access to water resources. Women are at higher risk due to a lack of independence and commitment to look after children. Increasing variability of rainfall is further exacerbating the shortage of accessible quality resources such as water for both human and livestock use.
Who or what adapts?	Pastoralists, village councils, village environment committees, district council
What do they adapt to and why?	Increasingly rapid encroachment of grazing lands by large-scale investors and smallholder farmers. Without enough grazing areas, livestock are often left to scavenge crop residues, leading to conflict between farmers and pastoralists. Livestock routes are often blocked by smallholder farmers seeking land for cultivation.

⁹ For a theory of change of this project, see Annex 3.

	<p>Encroachment is further driven by investors seeking to profit from relatively cheap land that has vague legal status. These processes are being exacerbated by the impacts of climate change, which bring increased need of larger land for farming and grazing, variability and uncertainty to rainfall patterns.</p> <p>Without adaptation, pastoralist livestock mortality will continue to rise, placing strain on the sustainability of these livelihoods.</p>
<p>How do they adapt?</p>	<p>KINAPPA has responded by:</p> <ul style="list-style-type: none"> • Raising awareness about legality of land (training on Village Land Acts) for both village councils and its institutions, communities and individuals • Supporting land use planning in partnership with institutions of village and district governance. • Facilitating training on climate change to encourage diversification of income streams. • Training on women’s empowerment and rights to support independence. <p>The community has responded by allowing women to control and own their own businesses, and allocating land to everyone in the community. This has given all adults the ability to generate a basic income through farming and sale of produce or renting out land to others for farming at 30,000TSH per 0.5 acre per season.</p>
<p>What costs and benefits of adaptation</p>	<p>No costs to adaptation were reported by the community.</p> <p>Potential benefits from adaptation include higher household incomes, more productive assets (livestock cross-breeding in particular) leading to greater food security through increased milk production, financial security through higher value market sales, and more diverse income streams.</p> <p>Successful land use planning will also lead to reduction in violent land use conflict, particularly between smallholder farmers and pastoralists. This will result in reduced burden and costs of controlling and managing conflict.</p>
<p>Implementation methods and resources</p>	<p>Activities focussed around a series of trainings at village level, in collaboration with the district council.</p> <ol style="list-style-type: none"> 1) Climate change awareness training of village councils leading to action to prevent environmental resources (forests etc.). 2) Land rights awareness training of village councils and land committees. Training focuses on Village Land Act No. 5 (1999) and Land Tribunal Act as well as the Land use Planning Act (2007) 3) Gender mainstreaming, gender awareness and rights training – contributing to rights of women to own businesses, land and livestock 4) Study visits to other villages for learning and replication of best practices 5) Facilitation of land use planning – in partnership with district council. Land use areas have been marked with beacons and are enforced by the land committee. Land committees have been established to take responsibility for maintaining and enforcing land use plans
<p>Constraints or Incentives to adaptation</p>	<p>Incentives include the rising rate of loss of grazing lands to agricultural and urban usage. Pastoralists feel threatened by these changes and are acutely aware of the need for action. Women’s rights have been incentivised by the fact that working women contribute to increased resources within a household.</p> <p>Constraints typically revolve around a lack of funding to facilitate the adaptations necessary especially development of land use plans. Districts either do not find land</p>

<p>What impacts result?</p>	<p>use planning to be a priority and/or do not have the funds or knowledge to facilitate it.</p> <ul style="list-style-type: none"> • Greater and more secure access to resources. Land use planning supports preservation of grazing areas to be managed by community leaders, often in partnership with leaders from surrounding villages. The land is made secure by implementation of by-laws which prevent encroachment onto the land. • The knowledge of land use plans and land use conflict resolution has also allowed the community to reclaim some areas of land from farmers for grazing. In Kiteto, 60 hectares were reclaimed having been established as farms by cultivators from neighbouring Kongwa district. • The changing role of women following land awareness training has had a significant impact. Land has been distributed to everyone in the village, including to women. Each person has 0.5 acres to farm or to rent out for seasonal cultivation at TSH30,000. Women have gained equality in household decision making, with some pastoralist household now paying for others to construct housing rather than placing responsibility on women. Women have also begun to seek representation in formal public roles especially village council membership, village institutions etc. • Engagement of the district in these activities has led to an improvement in extension services, particularly veterinary services. Pastoralists and the district pointed out the increased number of extension staff deployed to pastoral villages. Extension officers gave training in climate change, animal husbandry, etc. The district has also funded dams in pastoral areas and improved ECF vaccinations.
<p>How well do they adapt?</p>	<p>The nature of change in adaptive capacity is differentiated across the community.</p> <p>The more vulnerable and poorest have achieved some measure of independence. These were often widowed or divorced women, or those with negligent husbands. Acquiring land and livestock provides some improvement in circumstances.</p> <p>Those who already possess some assets at the beginning of the process have become aware of new possibilities, such as cross-breeding livestock for higher value and diversifying incomes. Improved access to land and resources supports the needs of their herds.</p> <p>Early signs indicate larger herd sizes and higher prices for healthier livestock at market. Those with higher incomes are also investing in permanent houses, marking a conscious decision to choose the village as a base, with the potential to engage in farming as well.</p>
<p>How does the system change?</p>	<p>The changing role of women signifies a notable cultural change in household dynamics. Ownership and control over income streams for women may have significant impacts in the long term.</p> <p>It is difficult to claim that other aspects offer systemic change. Unless the district commits to continued support for land use planning with financial resources, these improvements may be short lived.</p>
<p>What are the plans for the future?</p>	<p>Continue expanding the project to other villages within the district. Continued engagement with district government.</p>

4.2.5 Case Study 2 – HUDESA (Kilosa)¹⁰

¹⁰ See Annex 3 for a Theory of Change Diagram

HUDESA	
Nature of vulnerability / perceived risk	<p>Increasingly variable rainfall leading to reduced viability of crops, pasture availability and scarcity of water. Rainfall can be too intense, destroying crops, or too scarce, undermining crop growth.</p> <p>High level of conflict over land driven by population growth, draining resources and often leading to loss of grazing lands to crop farming. These contribute to lower incomes, food insecurity and fewer assets (i.e. livestock) with which to provide security during drought events.</p> <p>Government extension services are perceived as weak, providing insufficient support for livestock keeping.</p>
Who or what adapts?	Pastoralists and agro-pastoralists with support of village and district authorities.
What do they adapt to and why?	Population growth and rapid encroachment onto traditional grazing areas by farmers has led to violent conflict between groups. There are disputes between members of the community over land ownership and boundaries. In addition, previous training on land rights had led to conflict as participants sought to establish rights of ownership over favourable areas. These problems have been exacerbated by unpredictable rainfall, with short, high intensity rainfall damaging crops, or longer dry seasons that undermine the production cycle through making resources even more scarce. Issues were brought into focus in 2009, when drought made crop farming impossible, and many were left with no income.
How do they adapt?	<ul style="list-style-type: none"> Reducing conflict over land through training of land tribunals to adjudicate disagreements fairly. This reduces strain on resources and allows conflict to be dealt with at village level in a more efficient manner. Support for women's rights of access to the means of production and to control their own businesses is both empowering in itself but also supports higher household incomes. Vulnerability of women and their dependents is reduced to increased independence and ownership of income by women. Diversification of income generating activities, avoiding complete dependence on livestock keeping by engaging in non-water dependent activities (bee keeping). Engaging in short cycle crops (vegetables, tomatoes) and selling seedlings. Reducing environmental degradation in partnership with government.
What costs and benefits of adaptation	<p>Reduced vulnerability and increased income due to higher household incomes.</p> <p>Increase in income generating activities, in part driven by growing independence and empowerment of women.</p> <p>Preservation of forest resources, providing future source for sustainable timber or charcoal production.</p> <p>Reduced conflict, allowing less waste of resources and higher availability of resources.</p>
Implementation methods and resources	<ul style="list-style-type: none"> <i>Training on climate change.</i> Training focused on the nature of climate change, its likely impacts, and possible approaches to adaptation. <i>Establishing Land Tribunals.</i> Trained on conflict resolution and proper legal process, tribunals offered a way for fair adjudication of land disputes, as well as collection of proper documentation in case of appeals to higher courts. <i>Training on gender and women's rights.</i> Training focused on women's legal rights to access resources and own their own businesses.

	<ul style="list-style-type: none"> • <i>Local Government Authority(LGA) Engagement.</i> HUDESA facilitated greater participatory engagement with the district council planning process, incorporating pastoralist representatives into planning meetings <ul style="list-style-type: none"> ○ Dialogue Day. A local radio broadcast dialogue day between district planners and pastoralists, mainly focussing on environmental degradation and surrounding issues. <p>The “Azimio” Group at Ukwama village established a bee-keeping scheme, selling honey at the market. This activity responds to learning from the drought in 2009, in which the drought made seed planting unproductive. Bee keeping has been chosen because it does not require water, guaranteeing some income throughout a drought. Other approaches to diversification included hand-crafting, a piggery and growing “short cycle” crops such as vegetables, which are better adapted to more unpredictable and shorter rainy seasons.</p>
<p>Constraints or Incentives to adaptation</p>	<p>Adaptation is incentivised by a well acknowledged threat to pastoralist livelihoods. Many in the community were significantly affected by drought in 2009, and it is clear that seasons are changing and having a negative impact.</p> <p>It is also clear that there is less land available for livestock keeping, incentivising the need for diversification of income generating activities.</p> <p>Significant constraints come from the limited ability of local governments to support land use planning, which would support necessary resource access for pastoralists engaged in livestock production.</p>
<p>What impacts result?</p>	<p>Impacts are still relatively new and therefore difficult to gauge. However, communities are reporting reduced conflict, with disputes more likely to be settled at village level. As a result, time and energy previously spent accessing distant courts, riven with corruption is reduced. Higher household incomes are also being driven by increased incomes for women.</p> <p>Dialogue and engagement with the district council has led to efforts and action to protect local forest and water sources by reducing environmental degradation. The dialogue day gave people a chance to express their need for formal land use planning. As a result of both the climate change training and the dialogue day, the district is financing tree planting and the community has appointed guards to protect areas from tree cutting for firewood and charcoal production.</p> <p>Training of land tribunals has led to improved procedures for adjudicating land ownership. More cases are settled at village level, rather than being referred upwards to higher courts and straining resources. These trainings on land rights have also facilitated women to gain access to land controlled by clan leaders.</p>
<p>How well do they adapt?</p>	<p>Adaptation outcomes are tentative at the time of study, and the communities’ resilience has not yet been tested by a serious climate hazard. Using resilience spectrum lines, the community reported an upward increase in resilience of 15%.</p>
<p>How does the system change?</p>	<p>The major change that may be considered systematic is the changing role of women. Women are gaining increased independence, decision-making power and income, which is having a significant impact on the household and community at large.</p>
<p>What are the plans for the future?</p>	<p>Continued lobbying of the government for services such as land use planning and improved extension services.</p> <p>Further adoption of income generation activities across the community.</p>

4.2.6 Learning from Community Interventions

Interviews with stakeholders from several levels of the project have identified key learning from the interventions at community level that may be channelled into future programmes and projects.

- **The Village Assembly is a key institution for driving change** – The Assembly has the ability and apparent willingness, when prompted, to meet and change policy and cultural institutions very quickly. Changing perceptions of the village council on climate change, gender or land rights leads to a village assembly meeting at which the community is made aware of and convinced of the need for a particular policy or enforcement of rights. Rapid and necessary local level changes can be made this way, most notably on women’s rights of ownership of assets, and enforcing by-laws to reduce deforestation and preserve land use plans.
- **Gender Empowerment** - Training on gender rights under the law and the concept of equity for women in terms of income generation is quickly accepted by communities. As a result, women report increased independence and parity of decision-making within their households. This in turn is leading to increased spending on girls’ education, domestic needs, and food supplies. Empowerment was enhanced further when gender training was explicitly linked to individual land rights, entrepreneurship and representation. Such training has empowered women to claim land from their clans to generate their own income and to contest for leadership positions. This has benefitted widows and divorcees in particular.
- **Training on climate change awareness** - Training on climate change tends to have two main influences. First, it encourages enactment of by-laws to prevent environmental degradation. This can include restrictions on tree felling, or banning the use of chainsaws. Some also appoint community guards to prevent further deforestation. Second, participants tend to react by seeking ways to diversify income through other income generating activities as a climate adaptive strategy. This is typically through planning short-cycle crops such as vegetables, seed gardens, establishing small businesses or bee keeping.
- **Land Use Planning has immediate impacts** – The completion of some form of land use planning or demarcations of grazing areas and livestock routes can have immediate effects. Demarcating smaller livestock routes that are less well known to farmers from outside the area benefits poorer pastoralists. Those with smaller herds have less to travel far from the village for resources, but it is vital they can reach nearby water sources or pastures. If routes are blocked by farms, pastoralists with smaller and weaker herds are required to travel further, placing animals at greater risk.
- **Incorporating District Staff has a positive influence** – The use of district staff in climate change awareness of training, or supporting land use planning or resource mapping, brings pastoralists into contact with district planners. This is beneficial for increasing understanding of pastoralist requirements. Government workers in Kiteto reported beneficial experiences to their own having learnt from training activities.

4.2.7 Pastoralists Programme - Advocacy and National Engagement

The program capacitated CSOs to engage in national level advocacy on issues of pastoralism and climate change. TNRF have developed and continue to coordinate a national network of pastoralist CSO's to support this aim. Working closely with PINGOs Forum, CEDESOTA, KINNAPA and TAPHGO, each of whom had their own networks of local CBOs, they developed a strategy that supported organisations to coalesce around emerging issues and advocacy opportunities. TNRF and other national advocacy NGOs also linked issues experienced at local level by implementing partners with national forum to enhance national policy engagement. Their objective was to contribute to the creation of an enabling environment for pastoralists to maintain their livelihoods. In practice, this led to a focus on the constitutional review process, lobbying for increased budgetary allocations for livestock development, and pushing for greater priority of livestock development.

4.2.8 Methods and Resources:

The range of advocacy methods used focused on communication and engagement with stakeholders both in and out of government. Supporting fact based dialogue and debate, media campaigns and production of various communication and advocacy materials(publications) to influence policies has been a key aspect of the approach, particularly around specific opportunities for change.



Figure 1: Methods for Advocacy

Almost all of the methods used attempted to engage directly with MP's, civil servants and other policy makers. TNRF and others worked with the Parliamentary pastoralist group and other supportive MP's to achieve access to key debates.

4.2.9 Key Successes

The decision to support organisations to coalesce around key issues has yielded results. While it is difficult to attribute results directly to the Pastoralist Programme funded advocacy work, it is likely that it has made a significant contribution.

The Katiba Initiative

The “Katiba Initiative” (Kai), also supported as part of Oxfam’s programme, brought together both pastoralist and non-pastoralist CSO’s around the constitutional review process from 2012-2014. Hosted by PINGOs Forum, a civil society organisation networking legal and pastoralism experts, CSOs, district and national level government leaders met on a regular basis to discuss how the rights of pastoralists could be permanently incorporated into the constitution. Joint work-plans and advocacy strategies were developed, with TNRF providing support for strategic engagement and Oxfam’s Pastoralism Project provided financial management and greater involvement of other pastoralist and CSOs in the processes.¹¹ There was regular engagement and alliance building with non-pastoralist groups, (such as agricultural and mining groups), seeking common ground in order to support constitutional changes that could be mutually beneficial. Steering committee members participated in lobby meetings with members of the constitutional assembly and the official drafting committee to advocate for pastoralist issues and rights in the final draft. Key activities included:

- Coordination of pastoralists and hunter-gatherer CSOs to nominate supportive individuals onto the constitutional review commission (this proved unsuccessful)
- Awareness creation and mobilisation of pastoralists and hunter-gatherers to offer opinions on the draft constitution,
- Submitting pastoralist opinions collectively to Constitutional Review Commission (CRC). Electing and nominating pastoralists individuals to take part in the Constitutional Assembly,
- Organised constitutional foras and engaged members of Constitutional Assembly and Parliamentary Pastoralists group to ensure pastoralists rights to practicing livelihoods are reflected in the final draft of Constitution.
- Research, documentation and publication of research directed at policy makers and those on constitutional committees.

The continuous engagement of pastoralists through the Katiba Initiative has contributed to significant changes in the final draft text of the constitution which will be subject to public vote. Pastoralists, farmers, fisher-folk and small miners would all secure guarantees rights if the constitution is accepted. Specifically, the draft text recognizes the centrality of land in development, and ensures rights of pastoralists and minority groups to own, manage and control land themselves, as well as access necessary resources.

It is noteworthy that in formally receiving the final constitutional assembly text, the President of Tanzania acknowledged the efforts of pastoralists and their representative CSO’s in providing guidance to assembly and drafting committee members.

Increasing the budget allocation

¹¹ The Katiba Initiative steering committee members included TNRF, PINGOs Forum, TAPHGO, CORDS, UCRT, PAICODEO, TPCF and ALAPA

A further success has been an increase in the budget allocation for livestock development. Budget allocations for the livestock sector in Mvomero and Kiteto were increased by 1% and 5% respectively for 2014/15. Hanang' and Simanjiro District's livestock budget allocation for FY 2014/15 has risen by 14%.

As with the review process, dialogue and consultative meetings played an important role. The parliamentary pastoralist group and the natural resource parliamentary committee were key actors. Relevant MP's had been trained on pastoralism and climate change by TNRF, and other MP's were engaged through a media campaign preceding and during the parliamentary session and LGA budgeting sessions. During the sessions themselves, advocacy groups were on hand to provide information at short notice to MP's seeking to influence the debate with relevant case-studies and statistics.

Influencing Annual Development Plans on Livestock

Some impacts were also made on short term livestock development policy.

- Milk has become a priority product under the new iteration of the Big Results Now framework. This represents a change from the introduction of BRN, when the ministry of livestock did not feature as part of its plans.
- The ministry of livestock participated in development of a "shadow Pastoralism policy for Tanzania"; an advocacy tool to promote pro-pastoralist policy development.
- CSO's aligned with the Pastoralism Program are now included in national decision making meetings for livestock and meat market development (i.e. the Annual Stakeholder meeting, the Meeting for Meat Stakeholders).

4.2.10 Learning from Advocacy Work

The successes generated have come from adherence to principles of openness, dialogue and strategic engagement with prescient issues.

Inclusive Dialogue – The Pastoralist Programme had most success when voices from pastoralist, non-pastoralist and government institutions were brought together. Their reputation of TNRF as neutral forum has been key to securing broad alliances and overcoming prior disagreements about the best advocacy strategies. Promoting dialogue has created champions for pastoralism within parliament, and created an environment that facilitated direct engagement with decision makers.

Focus on Key Strategic Moments – Identifying key moments for advocacy has been an important aspect of progress. Key decision points within government such as the constitutional review and budget review provided points of focus for media campaigns, publication of briefs and evidence gathering. They also provide points around which to gather alliances on particular aspects of legislation or the budget.

Focus on Government Interests – With pastoralism often having negative connotations among national government officials, it has been more effective to advocate on issues that are key to government but overlap with pastoralist aims. Climate Change, improved governance, gender and natural resource management are all key issues, which have a significant impact on pastoralists.

4.2.11 Conclusions -Transformative Potential

While it is clear that the Pastoralist Program is having a positive impact on communities, it is not yet clear that this work is transformative in nature. While changes in land use and resource access, implementation of laws on environmental degradation, and other measures are important, they do not yet constitute the creation of an enabling environment for pastoralist livelihood strategies to function effectively.

The lack of systemic change is due to the fact that many of the changes are incremental in nature. Land use plans at village level are likely to have a positive impact, but access to sufficient resources in the context of variability of rainfall over the long term are far from guaranteed. The same applies to conflict reduction. While this is undeniably a positive outcome of activities, it does not fully address the key causes of this conflict, which often lie in the continued emphasis on commercialisation and modernisation and spread of small scale, and particularly larger scale agriculture.

The most transformative aspect of the programme has been through the changing role of women. In all the communities visited, gender related training led to community decisions to allow women to engage in income generating activities, to own their own plots of land and to own livestock. Divorcees and Widows typically one of the more vulnerable groups, have benefitted in particular. In turn, their increased contribution to household income is giving them more parity in household resource allocation and decision-making. More household income provides extra security and availability of food, as well as schooling fees for children.

The advocacy work supported by Care and TNRF is also generating clear benefits. At present, it is difficult to call these benefits transformational. While progress has been made in positively influencing the constitution and possibly changing perceptions on pastoralism, these changes are provisional only.

4.3 Oxfam Pastoralist Programme

Oxfam Pastoralist Programme				
Entry Point	Who	How	Purpose/Objective	Expected CRM Change
National plans, policies, legal frameworks	PINGOs, other CSOs	Advocacy at national and international level. Appealing to UN Human rights , African Union with evidence and reports.	Establish Enabling Conditions, Partnership building and Stakeholder engagement. Identifying risks and adaptation actions.	Climate Change awareness. Institutional integration, participation, coordination
		Through Katiba Initiative, a forum of pastoralist CSOs with the common aim of influencing constitutional review process. Influencing pastoralist parliamentary group and Constitutional assembly. Generating evidence and briefings		Institutional integration (through the constitution). Improved budgeting and finance, improved awareness. Creation of enabling environment

		– encouraging inter-stakeholder dialogue		
Community / Village plans and strategies	Village Development institutions CORDS, UCRT	Drought Management Planning	Awareness raising, partnership building, Identifying Adaptation actions and supporting implementation, DRR	Raised awareness, institutional capacity for planning. Participation through planning. Ability to cope with uncertainty
	Community and district government	Securing process of land certification, planning and communal / individual ownership Communities, Districts	Adaptation implementation, awareness raising, risk management	Institutional integration (capacity), Enables uncertainty planning through mobility. Participation
		Land Use Titling (legal support), CSOs	Legal support for adaptation and implementation	Institutional integration

Oxfam’s work on pastoralism falls as part of a much broader country strategy supporting rural development in a range of areas. Work focussing on pastoralism supported the following outcomes:

- Improved resource access pastoralists through legally backed land use planning and legal titling
- Reduced risk of disaster through drought emergency planning
- Reduce conflict between different groups

4.3.1 Community Level Engagement

CBO’s supported by Oxfam have been dealing with many of the same issues faced elsewhere. As such, it will not be necessary to repeat the nature of vulnerabilities here. However, the approach by Oxfam’s projects have placed more emphasis on combining customary and formal aspects of land ownership, using existing legislation to provide more security to land use planning. There have also been moves to engage in disaster risk reduction through village, and occasionally district drought management planning.

Land Use Planning – CBO’s organised meetings between villages to establish agreed boundaries which could be surveyed and mapped. Maps were then approved by village councils, the regional secretariat and Ministry of land –Mapping division, leading to the issuing of new village land certificates. In many cases, these replaced village land documents last issued through Land Acts of 1923. Formal certificates have therefore laid the groundwork for facilitating land use planning between villages. In some cases, CSO’s trained village land use planning committees at village level to support land use planning, having village assemblies establish by-laws to enforce the plans. With land use plans established, support was provided for customary negotiations between traditional to support reciprocal resource access over wide areas than the village.

Land Titling – Other CSOs, in particular UCRT, are seeking to convert traditional ownership of land into formal legal ownership. Having established land use plans, often in collaboration with other villages to maximise the resources available, communities were supported to obtain communal, traditional rights of ownership of the land. Such an approach aims to

ensure that the common's maintains is current state, and serves as a legal defence against encroachment by large-scale investors. UCRT also provided funding to establish village land registries for proper storage facilities of documents to prevent theft and forgery.

Drought Management Planning – Other aspects of the work established or restarted village environment committees to develop drought management plans. Plans were developed using Oxfam's "Participatory Capacity and Vulnerability Analysis".¹² This process works with communities to identify the sources of vulnerability and the capacity already held within village formal or customary institutions to prepare for disasters. In most cases this has included development of early warning systems, and clan-based contributions for vaccinations of livestock in preparation for spread of diseases, purchase of food stocks and investment in chacodams before the end of the rainy season. Village environment committees then work in partnership with district councils to report on their perceived vulnerability during the dry season and their capacity and preparedness to manage drought.

Savings and Loans Schemes

Some projects in agro-pastoral areas had established savings and loans groups. One visited in Nanja village and Lupurko village by the study team in Monduli appeared to be having a positive impact on adaptive capacity. Low interest loans were issued to savers, with returns from interest paid out to shareholders in the savings group. Funds had also been used to collectively purchase solar lights for sale in the community, as well as project to establish a goat breeding and distribution scheme to support local income generation. The scheme was also notable in that men and women had an equal say in its management.

4.3.2 Climate Risk Management Outcomes

Improvements to climate risk management are mainly focussed at the level of village institutions. In some cases, the district has also benefited from development and integration of a district-wide drought management plan, developed in partnership with district staff.

Use of Climate Information

The development of drought management plans necessitates integration of climate information. Early warning systems may be based forecasts from Tanzania Metrological Agency(TMA) or traditional forecasting, and feature in bi-annual reports on the level of resilience to drought within the community at that time. This can then help district governments to decide if extra support is needed.

Planning Under Uncertainty

The presence of village and/or district planning for drought onset significantly increases the ability to prepare for uncertainty. In the case of village drought management plans established in in Nanja and Lupurko village, resources are ideally drawn from those already available. This means that plans are not left waiting for funding from government sources that might take a long while to be arranged. For established district wide plans, there is more of an opportunity for funding to make sure the plan can be implemented at the right time.

¹² See Oxfam (2012) for a detailed description and guide to this process.

Ngorongoro's "District Emergency Preparedness and Response Plan" has been drafted in partnership with the district staff. While it has not yet been completed, interviews with staff point out that the plan has been accepted and integrated into planning.

Participation

Development of land use plans to support grazing depends on community knowledge of key resources. The drawing of village councils into the planning process, and village assemblies into the process to ratify local by-laws, increased participatory engagement with a key adaptation process. It also places local communities at the centre of ensuring their own resource access. This is also reinforced in those communities where communal land titles have been obtained.

Awareness Among Stakeholders

All the processes detailed so far have required stakeholders to have an increased awareness of climate change. Activities have included training on the nature of climate change, how and why it is driving drought, and the potential risks it is and will continue to bring. Higher levels of awareness are a key foundation for long term mainstreaming of climate change into planning.

4.3.3 Improvements to Community Resilience

Improved Resource Access

The process of establishing land use plans through engaging surrounding villages, mapping and surveying the area for maps and seeking formal approval from regional and national land authorities is a valuable one. The mapping and surveying has involved resource mapping similar to that implemented by IIED. It has provided an opportunity for pastoralists to the sustainability of land use.

The establishment of communal rights of ownership and decision making over rangeland governance places control of grazing areas and water sources firmly in the hands of the resource users. It also offers a firm basis on which to prevent expansion of agricultural investment into the commons. This provides security of resource access, leading to improved productivity of livestock, reduced livestock mortality and higher incomes.

However, basis communal ownership of lands on the existing system of village certificates also brings risks. Discussion in the validation workshop pointed out that there had been cases in which the government had decided to gazette villages, separating them into "two-villages". In doing so, they had invalidated the village boundary certificates on which legal, communal rights of ownership were based. This presents a problem for future efforts to engage in this process, as there is no firm guarantee that villages will remain with the same borders. This experience provokes a broader question as to how to find the right balance between communal, traditional land ownership and formal planning or land governance processes.

Improved Disaster Preparedness

Development of village drought management plans, particularly in the context of improved rangeland governance, has a direct impact on adaptive capacity in the long term. With

improved preparedness for drought, more livestock can be preserved over periods of extreme weather. As a result, rebuilding processes will not take as long as the overall numbers of livestock in each household will remain enough to support food security and on going productivity. Communities reported that drought management plans had already come into affect and had played a role in reducing losses of livestock in the recent dry seasons.

4.3.4 Case Study 3 – CORDS based in Arusha with projects in Hanang, Monduli and Kiteto¹³

CORDS	
Nature of vulnerability / perceived risk	<p>Increasingly variable rainfall leading to reduced viability of crops and scarcity of water. Rainfall can be too intense, destroying crops, or too scarce, undermining</p> <p>High level of conflict over land, draining resources and leading to loss of grazing lands to crop farming. These contribute to lower incomes, food insecurity and fewer assets (i.e. livestock) with which to provide security during drought events.</p> <p>Lack of preparation for drought, leading to increased risk of livestock mortality during extended dry seasons.</p>
Who or what adapts?	Pastoralists and agro-pastoralists. Village government institutions.
What do they adapt to and why?	<p>The impacts of climate change are making livelihood strategies less productive. Crop farming is at risk due to intense and destructive episodes of rainfall, or extended periods of poor rainfall. Water sources are also undermined by these episodes, having less capacity despite ever increasing demand.</p> <p>Continual encroachments of both small and large scale farming activities into grazing areas, coupled with unreliable rainfall, is undermining the availability of grazing land for livestock.</p> <p>Issues were brought into focus in 2009, when drought made crop farming impossible, and many were left with no income.</p> <p>In some communities, agro-pastoralism make up a significant part of the community. For these communities, the ability to farm is being undermined by conflict with others as well as the changing and increasingly variable conditions. Seasonal changes, shortening the “long” rains, mean that traditional farming of Maize crops is not possible.</p>
How do they adapt?	<p>Securing village borders and facilitating land use planning, in order to secure resources.</p> <p>Capacity building within village councils to develop village land use planning committees for the development of village land use plans. Land use plans ratified and enforced through village assembly by-laws. These should also serve to reduce conflict.</p> <p>Establishment of drought management planning and reduction of environmental degradation.</p>

¹³ See Annex 3 for a Theory of Change

<p>What costs and benefits of adaptation</p>	<p>Facilitating formal land use planning process. CORDS brought villages together for negotiations over</p> <p>The financial cost of completing the land use planning is an on going problem for district. In a separate project, UCRT calculated that the entirety of this process can take up to TSH32m.</p> <p>Costs of sustaining the drought management plan also fall on the community, as the planning process is dependent on using available resources, of which the district council has few. As a result, while the long run benefits of drought management planning are reduced losses of livestock, the short-term costs are the need for local investment in the plan.</p> <p>There is need for a commitment to training relevant village committees, which may require payments to encourage on going attendance.</p> <p>Conflict reduction between pastoralists and between pastoralists and farmers are an immediate benefit of land use planning.</p>
<p>Implementation on methods and resources</p>	<ol style="list-style-type: none"> 1) Development of drought management plan in partnership with village council. Training of Village Environmental Committee on drought management and environmental knowledge. This has led to increased efforts to obtain vaccinations 2) Establishment and training of village land use planning committee – committee becomes part of district land use planning, developing village plans 3) Facilitation of boundary negotiations between villages finalise boundaries and obtain village certificates
<p>Constraints or Incentives to adaptation</p>	<p>Memories of drought in 2009 drive the need for adaptation. Community is aware that the seasons are changing and that this is having significant impacts on livestock mortality and the spread of poverty in general.</p> <p>The lack of resources constrain further adaptation. Joint Land Use Plans between villages may be effective but they still do not represent areas wide enough that guarantee year on year resource access for pastoralists.</p>
<p>What impacts result?</p>	<p>Impacts are still relatively new and therefore difficult to gauge. However, communities are reporting reduced conflict, and conflict settled at village level. Higher household incomes are being driven by increased income for women.</p>
<p>How well do they adapt?</p>	<p>Adaptation outcomes are tentative at the time of study, and the communities' resilience has not yet been tested by a serious climate hazard. Using resilience spectrum lines, the community reported an upward increase in resilience of 15%, but still believes itself to be relatively vulnerable.</p>
<p>How does the system change?</p>	<p>Support for land use plans based on formalised certificates and by-laws enforced by village assemblies represent a significant change from the traditional to formal land ownership. It is difficult to describe this as systemic change, rather than a method of restoring a process that had fallen out of operation. If the right balance between traditional planning and formal ownership can be found and kept secure in the long run, this process could arguably be called transformational.</p>
<p>What are the plans for the future?</p>	<p>Improvements to rangeland management are more incremental in nature.</p> <p>Continued lobbying of the government for services such as land use planning and improved extension services.</p> <p>Further adoption of income generation activities across the community.</p>

4.3.5 Oxfam’s Advocacy for Pastoralism

In addition to its community work, Oxfam supports organisations lobbying for an improved enabling environment for pastoralism. The organisations funded, including UCRT and PINGOs Forum, have used many of the same methods, and indeed partnered with TNRF on the same campaigns detailed above.

The most significant difference is the increased emphasis on human rights and lobbying at the international level coupled with in-country research and evidence gathering around key issues.

PINGOs Forum	
Nature of vulnerability / perceived risk	Unfavourable legislative and policy environment for pastoralists leading to a poor enabling environment for livelihood strategies based on mobility.
Who or what adapts?	Pressure is on national or district authorities to adapt through policy, institutional or legislative change. Community leaders must adapt their approach to better engage or contest government activities.
What do they adapt to and why?	<p>The impacts of climate change are making livelihood strategies less productive. Crop farming is at risk due to intense and destructive episodes of rainfall, or extended periods of not enough rain.</p> <p>Continual encroachments of farmers into grazing areas, coupled with unreliable rainfall, is undermining the availability of grazing land for livestock. Issues were brought into focus in 2009, when drought made crop farming impossible, and many were left with no income. Vulnerability is enhanced by lack of opportunities for women, often left dependent on male heads of household.</p> <p>Impact of climate change coupled with on-going competition for land can no longer be managed by autonomous adaptations of pastoralists. With government policies favouring agriculture, adaptation actions are alter the enabling environment to incorporate pastoralist needs such as mobility and availability of water sources.</p>
How do they adapt?	Adaptation, if successful, would be through substantive changes in planning processes, financial allocations, agricultural and livestock policies and other legislation that would offer a more favourable environment for pastoralist practices.
What costs and benefits of adaptation	<p>Apart from the financial costs, there is a risk of antagonising government through bringing unwanted pressure from abroad. However, this does not appear to have happened yet.</p> <p>Benefits of adaptation are an improved environment for pastoralism. Changes in the proposed constitution appear to offer indigenous peoples more secure rights to resources. This should include pastoralists as well.</p>
Implementation on methods and resources	<ol style="list-style-type: none"> 1) Gender and land training for village and community leaders. This has two main outcomes. The first is improved rights of women to own and control assets, giving them more independence and resources. The second is increased community knowledge on land rights, equipping people with legal knowledge to fight evictions by large investors or government actions 2) Paralegal training for community members. This generates an improved knowledge and desire to act on land issues. A task force was established to follow up on land issues and reduce conflict

	<ol style="list-style-type: none"> 3) Climate change training - Informing communities about climate change and the need to adapt. This typically led to efforts to reduce environmental degradation. 4) International pressure. Shadow reports on human rights during Universal Periodic Review aimed at the UN, particularly over alleged evictions of Maasai pastoralists from their lands. International campaigning groups such as Avaaz were also brought into pressure the government 5) National advocacy – hosting the Katiba initiative. Ensuring regular meetings of different groups, alliance building, assembly meetings of the public with MPs, and channelling of community knowledge and evidence towards key decision makers.
Constraints or Incentives to adaptation	Misconceptions about the productivity and sustainability of pastoralism continue to constrain progress on adaptation. There is a widely held belief that pastoralism is bad for the environment, drives conflict between different groups and does not contribute enough to the economy. These misplaced beliefs, when reversed through capacity building, become the opposite, with evidence suggesting that those that go through training on pastoralism do appreciate its contribution to both maintenance of the natural environment and the economy.
What impacts result?	Impacts from PINGOS work are hard to gauge in the long run, as the successes gained are relatively new.
How well do they adapt?	As above. It is still too early to tell how PINGOS work is providing high quality adaptation in the long run.
How does the system change?	If the changes to the constitution suggested by the Katiba Initiative remain in place, then pastoralists will have more secure rights to key resources country wide. This may lead to shifts in policy that support their needs more effectively.
What are the plans for the future?	Continued pressure and lobbying of the government on key issues.

Generated Learning

A significant proportion of advocacy work funded by Oxfam has been similar in style to that funded by Pastoralists Programme through Care and TNRF. As such, some of the learning is the same as that detailed above. However, slightly different emphasis of the approach has generated some extra learning.

- **Paralegal training** – Training on legal knowledge and rights equipped communities with skills to combat unjust government actions. It has demonstrated the willingness and ability of communities to mobilise in their own defence if necessary.
- **International Lobbying** – Appealing to international organisations such as the UN has played a role in changing government activities. There is a sense from stakeholders that the government is particularly concerned about its international image. As such, introduction of organisations such as Avaaz, or raising awareness at the UN can be an important part of preventing unjust practices.

- **Alliance Building** – The success of the Katiba initiative(Kai¹⁴) demonstrated the impact that broad alliances can have. PINGOs Forum were keen to point out that their regular meetings with representatives of farmers, hunter gatherers and mining groups played an important role in effecting change. Again, principles of dialogue, open forums for discussion appear to be key in building alliances within government.

4.3.6. Transformational Potential

The approach in Oxfam’s work of attempting to merge customary planning processes with formal and legal titling has the potential to be transformational. One of the more significant constraints to adaptation is the inability within district planning processes and national policy or legislation to incorporate customary livelihood strategies. Oxfam’s approach has been to use existing legislation to try to find this balance. Joint village Land Use Plans to support planning of resource use over wide areas, backed by communal rights of ownership, may be one way to do so. However, there are questions as to whether the legal basis for these plans can be protected from being undermined by governments gazetting villages for administrative or even political reasons. Transformational change may also be undermined by the fact that even Joint Land Use Plans still do not provide enough options for local pastoralists to keep resources use sustainable. Traditionally, pastoralists range across district and even national borders to access grazing areas that they need. Small regions of villages within a district may not be enough.

Oxfam’s advocacy work, like Pastoralist Programme Care’s/TNRF, has made tentative steps forward. Some of its most successful moments, such as preventing land evictions the north of the country, were reactive rather than proactive. It is too soon to tell if these changes will be transformational in the long run.

¹⁴ The Katiba Initiative (KAI) is a forum of more than 100 CSOs members scattered over Tanzania. KAI has a Steering Committee which is made of PINGOs Forum, TAPGHO, TNRF, ALAPA, MWEDO, PWC, TPCF, NYDA, PAICODEO, CORDS and U-CRT.

5.0 Learning From the Case Studies

Drawing on the experience of all three programmes offers a range of lessons that can be built on in future programme design. Learning been generated on approaches to supporting land use planning and governance, the transformative role of gender training and rights awareness, successful approaches to advocacy and approaches to building climate risk management.

5.1 Land Governance

Engaging with land and land use has been a key aspect of all three programmes. CARE/TNRF and Oxfam funded projects have directly facilitated land use planning. IIED have taken a more supportive role, convincing districts of the need to prioritise land use planning and providing tools to enable implementation. Most notably, all three projects have provided opportunities for pastoralists to explain the rationale behind their resource use to district planners or extension workers.

Individual Land Rights

Training and awareness raising within village councils and communities on land rights helps reduce conflict between individuals. Many community leaders have little knowledge of legislation and regulations relevant to individual land rights. This extends to village land tribunals, who often lack capacity for fair and formal administration of land disputes. Conflict between individuals can continue due to perceived unfairness or corruption. Cases moved to higher authorities are a drain on resources for both LGA's and individuals, often forcing people to travel long distances to reach courts. Training can therefore prevent conflict before it begins, with individuals able to settle disputes without reference to land tribunals, or with tribunals more able to fairly conduct hearings and make quick judgments.

There is a risk that training can also temporarily generate conflict. HUDESA in Gairo found that training on gender and land rights in the community led to conflict as women claimed land from unwilling clan leaders and individuals tried to use the new knowledge to their own advantage. As a result, training of tribunals became necessary to properly settle disputes.

In Kiteto, the village assembly has allowed each adult within the village to obtain 0.5 acres of land within settlement and farming areas of the village. In effect, this has given everyone in the community the opportunity to maintain a basic income. Either they can farm the land themselves and sell produce, or rent it out for a season at a cost of TSH30 000 per acre per season. This is a powerful way of improving the adaptive capacity of everyone in the village. In particular, women who are divorced or widowed benefit immeasurably, gaining some independence from relying on charitable giving of family or clan members.

Land Use Planning

Pastoralists see land use planning as the most significant requirement for continuation of their livelihoods. The case studies have utilized three approaches to land use planning.

- Care/TNRF projects facilitated land use planning at village level. With training, village assemblies enacted by-laws and placed demarcations to protect the land use plan.
- Oxfam-funded projects engaged in the same process, with more emphasis on seeking formal security of land access (land tenure). Use of Joint Land Use Plans and communal ownership certificates were introduced.
- IIED's facilitated digital resource mapping, producing maps which fed directly into district wide land use planning, and could be edited and reused in the future.

Communities from both Care and Oxfam funded projects reported that land use planning was beginning to make a difference to the health and productivity of their herds. However, the scale remains small and the impact is therefore limited. IIED's work provides a tool for planning across a much wider area. Land Use Plans have not yet been completed for three districts, but they offer the potential for planning over a wide scale, including securing large areas of land that may be allocated for grazing.

Planning Over Wider Spatial Scales

Implementers of all three programmes found it necessary to reflect pastoralist needs by extending land use planning beyond the spatial area of the village.

- Projects funded through the Pastoralist Programme (CARE/TNRF) facilitated and negotiation teams to discuss reciprocal rights of access between village grazing areas. These village based approaches are effective at small scale level during years of average or above average rainfall. They may be severely tested during a drought.
- Oxfam used the legal ability to establish Joint Land Use Plans between villages – enabling pastoralists to use customary planning mechanisms on secured areas of land. Formal community ownership rights are held by the village councils. These may increase the resources available, but being held by the village council, are at risk of being undermined if villages are separated or through corruption.
- IIED introduced the spatial scale of the division – a set of contiguous villages with similar socio-economic and ecological indicators – as the unit of planning. Divisions are the target of both resilience assessments and resource mapping. Participatory resource mapping is channeled into land use planning, but without emphasis on legal rights of ownership. It is assumed that once grazing areas are established, customary institutions will be able to take charge and control land governance.

Finding the balance of customary and formal land governance

These discussions raise questions as to where the balance should lie between customary and formal land governance. Pastoralists rely on their ability to respond and change strategy depending on seasonal variations, as well as networked relationships across clans and village areas. Any programme engaging with land governance for pastoralists must find a balance between fixed, formalized communal land tenure (that protects common land for grazing), and customary land governance essential to the sustainability of pastoralism as a livelihood.

At a minimum, land use planning backed by local by-laws serves as a deterrent to smallholder farmers seeking land for cultivation in grazing areas. This still may not be enough to prevent larger scale investors with district or national government backing from taking over and restricting access to large areas of land. Preventing such “land grabs” (as they are referred to by pastoralists) requires formal legal certification of communal land ownership. Obtaining such documents is a time consuming and relatively expensive process. UCRT, having done this, put the cost of the process of land certification, land use planning and securing communal land tenure at TSH 32 million (close to €14,000).

IIEDs work has attempted to give more scope to customary governance. The pastoralism training in the early phases demonstrated that pastoralists have sophisticated systems of governance, a fact often underappreciated by district planners. As such, it allowed for divisional level resource mapping, making allocations of areas for grazing easier. Once these are made public, traditional leaders will be free to negotiate reciprocal rights of access in the traditional manner, using the pastures available under the land use plan. This has however necessitated rebuilding of networks between traditional leaders have broken down in recent years. It is notable that there is no attempt to secure formal land tenure. Rather, land use planning coupled with demarcations of designated areas will be enough, with customary processes able to work effectively on their own.

5.2 Gender

Village level trainings have had a powerful and relatively rapid impact on gender relations. Women have begun to establish their own income generating activities, gaining independence and more control over household finances. Not only are they able to better provide for children with food and schooling, but also their contribution has led to equity in household decision-making. Widows and divorced women, generally among the more vulnerable, have also benefitted by being able to successfully claim small areas of land from clan leaders to support themselves and their children. Training has also led to women deciding to run for formal positions of office on village councils (data from the Pastoralist Program Annual Review, 2014).

- Arumeru: 36 pastoralist women have been elected in leadership positions at village, ward and district levels.
- Babati: 7 pastoralist women have been elected as treasurers of pastoralist unions at village level, 11 as secretaries of the union at ward level and 2 as members of pastoralist union at District level
- Mvomero: Through the work of local CSO's, 2 pastoralist women and 1 man were elected as members of the Ward Council in each of Melela, Mvomero and Hembet wards. Previously, female representation had only been present in Dakawa ward. Pastoralist men and women have also been elected in several villages.

- Gairo: 6 women have been elected as chairpersons at Lusinde, Mfuluni and Mission sub-villages of Gairo ward, Chakwale and Nagwai sub-villages of Chakwale Ward and Dida sub-village of Idibo ward.

Such changes reflect the beginnings of transformational change in the role of women in target areas. This surprisingly rapid transition of power may be explained by the fact that male heads of households are directly benefitting from the higher incomes brought to the household by working women. They also reported an increase in spare time as women take on income generating activities formerly run by men. There are anecdotal reports that men are spending more time engaging in traditionally female dominated activities such as childcare. In Kiteto, many households are choosing to pay external workers to build houses, rather than leaving women to complete this task.

5.3 Successful Methods for Impact at Community Level

Identifying common approaches across the case studies highlighted particularly effective methods of implementation that contribute to rapid outcomes.

Working through local Civil Society Organisations

CSOs tend to have good relationships with communities and a more detailed understanding of their needs in the specific geographical contexts where they operate. CSOs that have existed for a longer time period also tend to have the advantage of being known and accepted by district governments, giving them a certain level of access.

“KINAAPA and CEDESOTA have been working and cooperating with us for a long time. They have helped us to understand pastoralist livelihoods much better”. – Kiteto Extension officer

CSOs can bridge the gap from village to district governments and represent local views. This promotes further opportunities for direct engagement and dialogue between rural communities and district staff.

The Village Assembly

The village assembly has played a key role in cementing the process of change. Training focussed on village council members on gender, pastoralism, climate change and environmental protection or land use typically led to the calling of a village assembly at which these issues were discussed. Together, these institutions then have the power to enact by-laws, elect new committees to ensure they are enforced, and change local practices. Village Assemblies have been crucial in raising awareness and changing the role of women in the community, as well as attempting to control environmental degradation.

Resource Mapping

Resource mapping is a powerful tool with two main purposes. The first is to serve as a basis for the kind of planning that is essential to local livelihoods. A completed digital map can be used to make resource mapping cheaper, more participatory, and more accurate. It saves planners having to travel across villages to visually ascertain boundaries, and can be distributed easily. The second outcome is the way in which the participatory process of

resource mapping helps to explain pastoralist resource use to government staff. If one of the main drivers of poor policies towards pastoralism is misunderstanding about the sustainability of livelihood strategies, then resource mapping is a key weapon to combat this. Maps are also reusable. IIED has completed an atlas of the three districts of Monduli, Ngorongoro and Longido which will provide a firm basis for district land use planning based on the locations of resources.

Working Within Existing Legal and Institutional Frameworks

Working within existing frameworks, whilst imperfect, can lead to quicker results. Much of the training on land focussed on the Village Land Act 5/1999 , Land Act 4/1999, Land Tribunal act 2/2002, and Land Use Planning act 6/2007. While these acts can be contentious, work by UCRT and CORDs in particular demonstrate that they can be used to offer positive outcomes. There are opportunities to secure land tenure, and in particular ensure that women are able to control and access their own land and other resources.

IIED's work has been successful in part because it has used existing processes and enhanced them, rather than creating parallel processes. An important aspect of the process has been to encourage district planners to identify flaws of the system from their unique insider perspective, and to offer their own solutions. As a result, solutions are based on the planning and budgeting structures already available. The resilience assessment and resource mapping serve are designed to enhance and develop on the existing O&OD process, providing comparable data at a lower cost. Training on the TAMD processes has built capacity within already existing monitoring and evaluation departments, improving existing systems rather than replacing them. This has been key in ensuring that changes that enhance climate risk management "bed in" and are more readily accepted.

5.4 Independent Adaptation Strategies of Communities

The support of pastoralist programmes is enabling pastoralists to independently adopt adaptation strategies. While this is not an exhaustive list, it does suggest the direction of travel for pastoralists in terms of strategies for dealing with the impacts of climate change. These are developing in contexts where there is currently no ideal enabling environment for simply enhancing traditional pastoralism. They are adopted with a tacit acceptance that long practices strategies need to change.

Diversification of income sources

Project visits suggested that the end goal of diversified income streams differs depending on the amount of crop farming already engaged in by the community. Agro-pastoralist households in more fertile areas are more likely to adopt short cycle crops such as vegetables for sale at the market. Those with more resources may also buy specialist, fast growing or drought tolerant varieties of Maize, or establish small businesses or beekeeping enterprises, with less water dependence. Agro-pastoralists tend to save money in community savings schemes or invest it directly on food supplies and education for children. Such schemes further support diversification in the future, as well as bringing community members together to discuss adaptation measures.

Communities with a lesser dependence on farming and more emphasis on livestock on livestock suggested that diversification of income generation activities was mainly for the purpose of generating extra capital to channel into obtaining additional livestock. This was particularly the case in IIED target districts of Longido and Ngorongoro, where even the minority farming or mixed farming groups pointed out their desire to invest in livestock.

Construction of Permanent houses

A distinctive trend is construction of permanent and more solid housing. Discussions with groups during the study centred on the need of some of the family members to remain settled in one area to access government support and be close to an area where crops can be grown or other income generating activities can be established. Sturdier housing is also a defence against the strong winds which many are attributing to changes in climate. Construction of permanent houses tends to be an aspiration of those in the community who are already relatively wealthy.

Cross Breeding

An important strategy for all pastoralist communities was the need to cross breed existing Maasai Zebu local breeds with foreign Borana and Saiwal cattle breeds. The reason for cross breeding (rather than destocking existing breeds and replacing them with imported, higher value breeds) was to breed an animal with the resilience of the Maasai Zebu with the quality and quantity of milk production, as well as the higher market value of the Borana and Saiwal. Doing so would enable livestock to remain mobile to access grazing areas whilst making them more marketable and improving food security. This tends to be a strategy that is unknown to pastoralists until they have had the appropriate training, and is generally only available to those with funds to access a higher value breed. The approach is not without risks – it may take time to develop a breed that is sufficiently resilient to heat, water shortage and disease resistant to withstand drought.

5.5 Climate Risk Management

The most progress made in integrating climate change into planning, or developing climate risk management, was by developing district capacity. IIED's work has explicitly focused on strengthening the capacity of district authorities to understand and act on the needs of dominant local livelihoods. Doing so has taken considerably longer than the other projects, and it remains difficult to comprehensively identify benefits felt by communities on the ground. What is clear is that activities to introduce climate risk management are "bedding in" to district planning. An important driver of this acceptance is that relevant district staff feel ownership of the process of change, a sense generated by placing local staff at the heart of problem identification, research and generation of solutions.

It is also clear that IIED's activities have generated support and understanding of pastoralist livelihood strategies within the district. There is appreciation of the need to distribute climate information and to incorporate climate change into planning through use of resilience assessments and TAMD. Indeed, IIED is the only organisation studies in which learning and improving from adaptation interventions is an integral part of the programme. As already noted, districts are attempting to incorporate findings from resilience assessments into budgets, and have developed M&E strategies based on the TAMD framework.

In comparison, the use of the community as entry point for adaptation, while having more rapid impacts on immediate local resilience, does not offer the scope for long-term improvements in climate risk management. While village institutions may have more knowledge about climate change and power to enforce local by-laws, they do not have the scope or capacity to enable successful practice of pastoralist livelihoods.

Despite this limitation, the two most effective aspects for climate risk management at village level are land use planning and drought management plans. Land use plans, particularly when negotiated between several villages, can at least allow customary institutions to reserve dry and wet season grazing areas in a way which manages the risks of variability, to the extent to which rain falls within those areas. Similarly, drought management plans to force villages and particularly clans to manage their own resource under the assumption that a threat will inevitably develop at some point in the future. While neither offer transformative change in the ability of the local community to manage drought, they do offer changes to local organisation which improve resilience.

5.5 Advocacy

Some level of advocacy has played a role in all three programmes. While Oxfam and Care/TNRF have lobbied national government, IIED has facilitated processes at which pastoralists can explain their needs. A range of strategies appear most effective at driving positive change in the enabling environment for pastoralists.

Supporting Dialogue and Training

Facilitating dialogue between multiple actors from different perspectives on issues surrounding pastoralism helped to lay the foundation for increased influence. Facilitating this dialogue may require actors with a strong reputation for neutrality and fairness. TNRF, in its dedicated and reputed role as a forum, was able to create this environment, overcoming disagreements between various pastoralist lobby groups. This has enabled a stronger and united voice on pastoralist issues.

“Previously, many of these organisations had not been in regular contact due to disagreements about how to engage with government. wanted to raise awareness through challenging government. To break this down, we provided a neutral forum which people trusted based on our reputation.” – Joseph Olila, TNRF

At the same time, assembly meetings of stakeholders including government and civil servants has also allowed for personal engagement, sharing of perspectives and knowledge transfer, to positive effect. MP’s have been influenced by this process, and their role in affecting budget discussions has been important. The Katiba Initiative, dedicated to creating alliances for positive outcomes in the constitution, brought together non-pastoralist organisations into alliances on rights of resource access. Through monthly meetings and coordinated actions, they made compromises on their needs and count the influencing of the constitution a major success.

The Importance of Changing Perceptions

All three programmes have included attempts to challenge misperceptions about pastoralism through dialogue, facilitated engagement or direct training. The pastoralism training course by TNRF and IIED in particular has been credited with “starting a fire” among key decision makers about the value and sustainability of pastoralism. Interviews with district extension officers also pointed out the way in which their understanding of pastoralism had changed, affecting the way they went about their jobs. This has also been the case at national level, where it appears that dialogue and inclusion of MP’s has led to broader support for funding for livestock development and land use planning.

The progress achieved demonstrates that many government staff and elected representatives are willing to engage with the issues and act on them if they believe they will support local economic development. The support of district leaders, District Executive Directors and District Commissioners has been instrumental in driving acceptance of new planning tools within the districts. Concepts such as pastoralist mobility and sustainable production systems are gaining a much fairer hearing, particularly at district level.

Generating Evidence

Discussions with staff involved in advocacy pointed to the role in which having evidence and statistics has helped those in parliamentary or constitutional decisions influence events. Anecdotal evidence points to MP's being texted key information during debate, or exiting chambers to gain more information from CSO advisors waiting outside. Use of first hand evidence as a driver for lobbying and advocacy has been an important aspect of work funded by both Oxfam and Care.

Focus on points of interest

Careful choices of the points of entry for advocacy have also paid off. Knowing the negative connotations that pastoralism has at national government level, the focus has been on points of interest to the government. Engaging government on topics such as natural resource management, gender and climate change have all had more success than focussing on pastoralist transhumance and land use. Concentration on international sources of pressure, particularly the East Africa Community, African Union and the United Nations, have also motivated government into action. Points of interest also refer to key strategic political moments, such as the budget review and the constitutional review process already discussed.

6.0 Conclusions

How this learning is used will depend in large part on the aims of future programmes. Delivering rapid improvements in adaptive capacity necessitates a very different approach to integrating climate change into planning and introducing climate risk management. This is highlighted most clearly in the differences in impact and learning between the work of Care/TNRF and Oxfam and that of IIED. The main difference between the work of IIED and the work of Care/TNRF and Oxfam is the choice of entry point.

Care/TNRF and Oxfam

Care/TNRF and Oxfam have focused at both the level of the village and the level of national government. If the aims are to deliver improvements to local livelihoods in a short time period of time, then the entry level of the community is more appropriate. Interventions at are likely to generate modest improvements to local productivity after a less than a year. The approach of using training and capacity building at village level (as opposed to service provision or cash transfers, for example) tends to lead to incremental adaptations. While it provides the knowledge to engage in diversification, reduction in environmental degradation, or land use planning, it does not provide comprehensive resources to the community to scale up these processes across a wide area, or to innovate and try comprehensive new ideas.

Focus on the village as entry point also leaves one ultimately tied in to the limits of village boundaries, which limit the impact an intervention can have. Lack of resources and lack of an ability to plan at wider scales are major hindrances in areas where pastoralism is

dominant. While efforts have been made to scale this challenge through cross border negotiations or joint land use planning, ultimately, the scale of interventions may not be wide enough to support sustainability of a large community of pastoralists.

Care/TNRF and Oxfam have tried to balance this problem with advocacy at national level. It is clear that they have experienced some successes in this regard. However, national level advocacy also tends to bring only incremental gains, with party, inter-sectoral and inter-institutional politics to negotiate. If advocacy is to be built around key strategic moments, then the process is likely to be slow as such moments are relatively uncommon.

IIED

By contrast, IIED's work has used the district as its key entry point. The reason for doing so is the fact that decentralisation places the district as the driver of socio-economic planning. It is the central body in delivering context relevant investments in development, and therefore key in managing climate risk in the long term. The approach of capacity building and institutional strengthening has had notable impacts on the mainstreaming of climate change into planning, implementation and M&E processes of the district.

However, this process has been time-consuming, requiring the changing of perceptions among district leaders, identification of problems through research, participatory audits of district problems etc. Even then, the improvements to adaptive capacity for communities have not been transmitted. Further progress and full mainstreaming of climate change also faces significant challenges. It does not look like districts will receive autonomy of spending in the near future, which will continue to limit their ability to plan under conditions uncertainty.

Use of a range of approaches

For pastoralists to be able to successfully adapt to the impacts of climate change, interventions will be needed across a range of entry points. It is sustained focus at all levels that will create the transformative changes in policy, institutions and implementation that are necessary. Policy direction on issues such as land, livestock and natural resource development all matter. But implementation of development on the ground is also central to driving positive change.

As section 3 points out, one of the drivers of land use conflict and land loss is existing national policies on agricultural and livestock development. These do not create the enabling environment needed to secure continued sustainability of pastoralist livelihood strategies. Such policies are unlikely to change without sustained efforts to alter misconceptions or lobby on policy development at national level. Bearing in mind that successes have come from focussing on issues that go beyond just pastoralism, it is likely that the correct approach may not be to focus on ministries responsible for livestock, but on rights of indigenous peoples to control traditional resources. This allows advocacy organisations to draw in directives and recommendations from institutions such as the United Nations, The African Union and the East African Community on the rights of pastoralists and indigenous peoples.

However, as IIED's work is showing, it is possible to convince districts authorities, central bodies in planning for climate change, to change their way of working. The introduction of the division as a unit of planning, and the appointing of DAPCs to manage them, highlight

this point. Districts are clearly willing to accept changes and improvements if they can be convinced they are beneficial and productive. It is work at the district level that is having the most long term impact on improving climate risk management and mainstreaming.

That being said, there can also be pressure on donors and implementing organisations to deliver rapid outcomes. This may be to demonstrate effectiveness and gain trust with local authorities and even communities. The fact is that while it may not be sufficient, the unit of the village is the dominant one for planning, and the scale accepted under current legislation on land and land use. With support for land use planning often the main priority for pastoralists, it may be effective to attempt to deliver quick results through village land use planning rather than “reinventing the wheel”. This may depend on the context in which funding is given, its overall aim, and the capacity of implementing organisations.

Gender

Amid all of these interventions, the potential for gender equity should not be overlooked. The significant successes seen in Care/TNRF and Oxfam’s work on gender demonstrate that there is a latent and unexploited willingness within communities to empower women. Empowered women can raise household incomes, increase the economic productivity of communities and drive towards improved children’s education and food security. Incorporating gender rights training, particularly with respect to women’s individual rights to land, should be key in any future programmes, given the positive potential this can have.

6.1 Incorporating Learning to Improve Climate Risk Management

It is important to recognise that much of the learning here comes from projects that have been implemented recently. As such, there are questions as to the sustainability of reported gains, potential risks to their continued implementation, and other broader or long-term factors which may be affecting perceived changes in resilience. However, recommendations can be drawn from the learning of the project for implementation in future programmes.

- 1) **Evaluate independent community adaptations:** Much of the community level work has facilitated communities to act independently. Moves to enact by-laws reducing deforestation, supporting women’s rights, diversifying income streams, building permanent houses and cross breeding have all emerged independently as a result of new knowledge about climate change. These different strategies should be evaluated for their adaptation effectiveness, potential for maladaptation and the differentiation of impacts across the community. A thorough evaluation relevant to the local context of Tanzania will enable donors to consider how they can best enable and support interventions led the community.
- 2) **Evaluate ways to effectively adopt learning:** A process to engage stakeholders at all levels to assess the relevance of this learning and how it should be incorporated into programming is necessary. Advocacy CSO’s should be a key part of this process, discussing how learning can be incorporated into advocacy strategies in the future. In particular, how to identify key moments on which to coalesce broad based coalitions. At district and community level, considerations of how to further integrate and support land use planning.
- 3) **Support efforts to improve land governance:** The three different programmes have introduced differing approaches to land governance. All attempt to chart a balance between formal land use planning and legally backed tenure (in it’s various forms), and

customary, cross border planning and negotiations among pastoralist clans and groups. All are united in assuming that securing rights of access merely provide a basis for customary governance regimes to function and maintain sustainability of land use. Finding a long term and sustainable balance will require research into the strengths and weaknesses of each approach, assessing which is more effective at delivering sustainable, long term security of resource access.

That said, securing land governance over spatial scales wider than individual villages is essential. This allows resources to be managed effectively over longer time scales and with much more flexibility. Village level planning may offer progress, but the changing nature of rainfall in arid and semi-arid zones mean that one village can suffer from drought while another close by has abundant pastures. In this case, village land use plans become ineffective, as pastoralists will seek out pastures regardless of village boundaries. Without planning at a wider scale, the risk of conflict will increase as pastoralists with resources seek to defend them from migrants.

Resource mapping is a powerful tool to support land use planning at village or district scale. Mapping enables pastoralists to challenge perceptions about resource use and offers a method to secure participation in land governance, as suggested in the National Environment Policy. Capacitating districts to develop digital maps through participatory engagement can up-skill planning officers and produce reusable, editable maps to support land governance as well as investment planning.

- 4) **Challenge misperceptions about pastoralism:** Misunderstandings about pastoralism are a major challenges to effective climate risk management in areas where this livelihood strategy is dominant. Many district and national government planners or extension workers continue to work with the assumption that pastoralism is unsustainable in the long-term. As such, they emphasise destocking, replacing indigenous with foreign breeds, ranching and crop production. However, the projects have shown that enabling pastoralists to explain their livelihood strategies during training seminars, resource mapping etc. can generate changes in perspective and therefore policy. Such engagements can demonstrate that pastoralists can be highly adaptive and contribute to a modern economy, albeit using customary methods. Opportunities to train and engage district planners in dialogue and learning should be promoted.
- 5) **Work with district governments to improve climate risk management:** The most significant strides towards improved climate risk management in all three projects came when district authorities were included. Facilitating training of district staff (i.e. via the National Environment Management Council), facilitating dialogue days, using district coordinators to promote the project within the LGA, and particularly capacity building of district institutions can all contribute. As the focal point for local level socio-economic development, enabling district planners and extension workers to understand the threats of climate change in dryland ecologies can pave the way for improved policy, planning and decision making. However, effectively integrating climate risk management into district ways of working will be a time consuming process. This is due to the fact that “bedding in” changes depends on district staff feeling ownership of the process of change. Such ownership requires time to be taken to engage district staff in identifying weaknesses and finding ways to incorporate improvements.
- 5) **Continue national advocacy work:** Efforts by TNRF, PINGOS Forum and others have built strong relationships with MP’s (e.g. through the Parliamentary Pastoralist Group)

and with CSO's from a range of different lobbying areas. Building on these efforts to support the rights of traditional livelihoods and improved policy must be continued while there is momentum for positive change. With recent policy accepting the role of traditional livestock keeping, and advocacy initiatives creating allies with parliament and other institutions, there are opportunities to positively affect policy and legislation.

- 6) **Supporting gender rights & awareness raising at local level:** Despite national legislation and policy which gives women equal rights to land, livestock and other assets, inequality of women remains widespread. Such inequality is reinforced at community level due to long-standing cultural habits and ignorance of the law. However, the case studies have shown that significant changes in the role of women can come through gender rights training and awareness raising within the community. Women can quickly become more independent, increasing adaptive capacity, gaining equity in household decision making and the confidence to seek roles in decision making fora. Such changes appear to be best generated through work at village level, where blockages to women's rights are reinforced in practice.

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Annex 1 – List of Workshops & Interviewees

S/N	NAMES	ORGANIZATION
	Gairdo District – 13 th June	
1	Rehema S. Jumanne	KIMWALO Group –Msingisi -Gairo district
2	Anna Semwando	KIMWALO Group- Msingisi-Gairo district
3	Magret Mwagalawa	KIMWALO Group –Msingisi-Gairo district
4	Pendo P Ngalawa	KIMWALO Group- Msingisi - Gairo district
5	Kezia Mnyangatwa	Azimio Group –Gairo district
6	Gloria Mwetewe	Azimio Group –Gairo district
7	Paulina Mbandegalo	Azimio Group –Gairo district
8	Halieth Mukumba	Azimio Group –Gairo –district
9	Isaya Mbandegalo	Azimio Group –Gairo district
10	Yohana mwetewe	Azimio Group –Gairo district
11	Filemoni Mshomi	Azimio Group –Gairo district
12	Jaksoni Mhumba	Azimio Group –Gairo district

13	John Mshomi	Azimio Group –Gairo district
14	Godisoni Chigoshu	Azimio Group –Gairo district
15	Enock Ngoila	Azimio Group –Gairo district
16	Helina Mshomi	Azimio Group –Gairo district
17	Yohanna S. Mwrite	Azimio Group –Gairo district
18	Cheneli Semwenda	Azimio Group –Gairo district
19	Fuime Anton	HUDESA
Kiteto district - Namelock Vilage 15Th June 2015		
1	Yohana Topoti	Namelock village – Kiteto district
2	Emanuel Michael	Namelock village – Kiteto district
3	Kipara Muree	Namelock village – Kiteto district
4	Leah Saratoi	Namelock village – Kiteto district
5	Rosa Michael	Namelock village – Kiteto district
6	Neema Richard	Namelock village – Kiteto district
7	Christina Landey	Namelock village – Kiteto district
8	Saibulku Lenginyeu	Namelock village – Kiteto district
9	Abalosi Kureya	Namelock village – Kiteto district
10	Emanuel Simingori	Namelock village – Kiteto district
11	Selina Ammi	Namelock village – Kiteto district
12	Ally Zuberi	Namelock village – Kiteto district
13	Nassoro Seph	Namelock village – Kiteto district
14	Lembulug Kosyando	NAADUTARO
15	Boniface Michael	NAADUTARO
16	Donath Antony	Namelock village – Kiteto district
17	Lotha Osujack	Namelock village – Kiteto district
Kiteto District- Engang'uingare village		
1	Mamayai Ngataiti	Engang'uingare village
2	Nakoi Kosei	Engang'uingare village
3	Babalo Kilesi	Engang'uingare village
4	Kakesho Alarusai	Engang'uingare village
5	Helena Alarusai	Engang'uingare village
6	Natuya Malipe	Engang'uingare village
7	Mbelai Krduni	Engang'uingare village
8	Sakeyani Nangala	Engang'uingare village
9	Titai Arususai	Engang'uingare village
10	Bator Alarusai	Engang'uingare village
11	Kore Alarusai	Engang'uingare village
12	Namu Lengude	Engang'uingare village
13	Naloya Katete	Engang'uingare village
14	Namnyaki Saunya	Engang'uingare village
15	Naroyai Teme	Engang'uingare village
16	Sabina Arkasoman	Engang'uingare village
17	Mainga Kitut	Engang'uingare village
18	Kiles Olotilopo	Engang'uingare village
19	Kadun Namurut	Engang'uingare village
20	Teme Lebara	Engang'uingare village
21	Kosei Lendula	Engang'uingare village

22	Kayan Kitui	Engang'uingare village
23	Saitoti Seperwa	Engang'uingare village
24	Oning'oi Olebara	Engang'uingare village
25	Loltungu Olubwani	Engang'uingare village
26	Mbalayi Yeyoo	Engang'uingare village
27	Saitabau Olanuku	Engang'uingare village
28	Perei Kalanga	Engang'uingare village
29	Kosei Loshoo	Engang'uingare village
30	Ndelelia Kale	Engang'uingare village
31	Kirima Sekenoi	Engang'uingare village
32	Kipondo Moko	Engang'uingare village
33	Saunyi Olabara	Engang'uingare village
34	Baraka Arkasonia	Engang'uingare village
35	Kolimba Kokoine	Engang'uingare village
36	Rayan Ndundula	Engang'uingare village
37	Muya Seuri	Engang'uingare village
38	Lesenga Olumbwani	Engang'uingare village
39	Anna Kiria	Kiteto District Council
40	Sapuk Korinja Olekao	Kiteto District Council
	Arumeru district	
1	Gudila Joachim	CEDESOTA
2	Vida Urasa	CEDESOTA
3	Jackson Muro	CEDESOTA
4	Nelson Aminiel	Aman group- Kikatiti - Meru District Council
5	Izaky N. Mungure	Ombeni group – Kikatiti - Meru District Council
6	Japheti P. Mollel	Aman group- Kikatiti - Meru District Council
7	Mery N. Mollel	Aman group- Kikatiti - Meru District Council
8	Lightness P Mollel	Ombeni group – Kikatiti - Meru District Council
9	Geofrey P. Mollel	Ombeni group – Kikatiti - Meru District Council
10	Ester W. Kivuyo	Ombeni group – Kikatiti - Meru District Council
11	Agnesi Esau	Ombeni group – Kikatiti - Meru District Council
12	Joyce petro	Ombeni group – Kikatiti - Meru District Council
13	Magret J. Mollel	Ombeni group – Kikatiti - Meru District Council
14	Tiksaeli J. Mungure	Ombeni group – Kikatiti - Meru District Council
15	Raeli Izaki	Ombeni group – Kikatiti - Meru District Council
16	Joyce Filimoni	Ombeni group – Kikatiti - Meru District Council
17	Leya Koole	Ombeni group – Kikatiti - Meru District Council
18	Jackson K. Kivuyo	Ombeni group – Kikatiti - Meru District Council
19	Julias Petro Mollel	Ombeni group – Kikatiti - Meru District Council
20	Ruth Willfredy	Ombeni group – Kikatiti - Meru District Council
21	Frida Rafael	Ombeni group – Kikatiti - Meru District Council
22	Anasta Emanuel	Ombeni group – Kikatiti - Meru District Council
23	Rosaleni Jacksoni	Ombeni group – Kikatiti - Meru District Council
24	Jacksoni Mollel	Ombeni group – Kikatiti - Meru District Council
25	Maria Sambeki	Ombeni group – Kikatiti - Meru District Council
26	Kesia Abeli Kaaya	Ombeni group – Kikatiti - Meru District Council
27	Aisha Hussein	Ombeni group – Kikatiti - Meru District Council

28	Yohana Daudi	Ombeni group – Kikatiti - Meru District Council
29	Amina Hamis	Ombeni group – Kikatiti - Meru District Council
30	Lokacha Kaaya	Ombeni group – Kikatiti - Meru District Council
31	Evaline Msuya	Ombeni group – Meru District Council
32	Epines Emanuel	Ombeni group – Kikatiti - Meru District Council
33	Jeresia Nasioyoki	Ombeni group – Kikatiti -Meru District Council
34	Happynes J. Ayo	INUKA Group –Kingori -Meru District Council
35	Upendo R. Mbise	INUKA Group –Kingori -Meru District Council
36	Mery Z. Ayo	INUKA Group –Kingori -Meru District Council
37	Eliakunda T. Kaaya	INUKA Group –Kingori -Meru District Council
38	Lea M. Mollel	INUKA Group –Kingori -Meru District Council
39	Ana O. Nanyaro	INUKA Group –Kingori -Meru District Council
40	Neema Samweli	INUKA Group –Kingori -Meru District Council
41	Liberatus Msasa	Meru District Council
	Monduli District	
1	Sara Lomayani	Monduli Women Pastoralits council(BAWAKIMO)
2	Nai Zakayo	Monduli Women Pastoralits council(BAWAKIMO)
	Nanja village –Monduli district	
1	Toima Kipoon	Nanja village
2	Njokut Alam	Nanja village
3	Parukito Ndeese	Nanja village
4	Teme Samsoni	Nanja village
5	Buluku Ngaimeria	Nanja village
	Ndeto Looloitai	Nanja village
	Senewo Kamili	Nanja village
	Sambeta Moikani	Nanja village
	Lekirida Lemurt	Nanja village
	Tingide Shamburi	Nanja village
	LEPURKO Village –Monduli	
	Christopher lazier	Lepurko village
	Loishire Sanare	Lepurko village
	Lendo Melema	Lepurko village
	Setla Melembu	Lepurko village
	Maria Thomas	Lepurko village
	Elisaria Saro	Lepurko village
	Elisatazia Maliati	Lepurko village
	William Lemuni	Lepurko village
	Anastazia Leizer	Lepurko village
	Alphonse Zenus	Lepurko village
	Emanuel Nowet	Lepurko village
	TNRF, CARE Tanzania, OXFAM, IIED/HAKI KAZI, PINGOS Forum, CORDS, UCRT, NEMC	
1	Zakaria Faustin	TNRF
2	Joseph Olila	TNRF
3	Mdubi M. A	Care Tanzania
4	Dalika Julian	Care Tanzania
5	Sophia Masuka	TNRF
6	Maiko Wambura	OXFAM

7	Isaya N Olesaibulu	PINGOs
8	Edward Loure	UCRT
9	Alphonce Zenus	CORDS
10	Emanuel Ndulet	CORDS
11	Alais Morindat	IIED/Haki Kazi/Trainer
12	Emanuel Sitayo	IIED/TNRF-Trainer
13	Deusdedit Kalenzi	SRMP Trainer
14	Ndimumi Joram Mboneke	National Environment Management Council (NEMC)
15	Dr. Vedast M. Makota	National Environment Management Council (NEMC)

Validation Workshop	
ORGANIZATION	NAMES
TNRF	Joseph Olila
TNRF	Magreth Mollel
TNRF/IIED -Trainer/Consultant	Emanuael Sitayo
IIED-Haki Kazi Catalysist	Alais Morindat
Irish Aid	Patric Lucid
Irish Aid	Kain Mvanda
Irish Aid	Dr. Tom Cadogan
Vice - President Office	Joseph Kihaule
National Environment Management Council (NEMC)	Ndimumi Joram
NEMC	B. D. Tarimo
OXFAM	Yangalai Ole Mkulago
KINNAPA	Paulo Tunyoni
CEDESOTA	Gudila Joachim
Kiteto District Council	Anna M. Kiria
KINNAPA	Samweli K. olekao
HUDESA	Fuime Anton Somoni
Meru District Council	Charles E. Msigwa
PINGOs Forum	Isaya N Olesaibulu
NAADUTARO	L.M Ole Kosyando
Tanzania Meteorological agency (TMA)	Sara Osima
CORDS	Alphonce Zenus
TNRF	Sophia Masuka
National land Use palnning Commission (NLUPC)	Charles C. Masumai
Care Tanzania	Julian Dalika
TNRF	Robert Masabile
SRMP Consultant	Deusdedit Kalenzi
TNRF	Zakaria Faustin
CARE Tanzania	Madubi M. A

Annex 2 – Summary of Potential Entry Points and Purposes of Integration

S/N	NAMES	ORGANIZATION
1	Joseph Olila	TNRF
2	Magreth Mollel	TNRF
3	Emanuael Sitayo	TNRF/IIED –Trainer/Consultant
4	Alais Morindat	IIED-Haki Kazi Catalysist
5	Patric Lucid	Irish Aid
6	Kain Mvanda	Irish Aid
7	Dr. Tom Cadogan	Irish Aid
8	Joseph Kihaule	Vice - President Office
9	Ndimumi Joram	National Environment Management Council (NEMC)
10	B. D. Tarimo	NEMC
11	Yangalai Ole Mkulago	OXFAM
12	Paulo Tunyoni	KINNAPA
13	Gudila Joachim	CEDESOTA
14	Anna M. Kiria	Kiteto District Council
15	Samweli K. olekao	KINNAPA
16	Fuime Anton Somoni	HUDESA
17	Charles E. Msigwa	Meru District Council
18	Isaya N Olesaibulu	PINGOs Forum
19	L.M Ole Kosyando	NAADUTARO
20	Sara Osima	Tanzania Meteorological agency (TMA)
21	Alphonse Zenus	CORDS
22	Sophia Masuka	TNRF
23	Charles C. Masumai	National land Use palnning Commission (NLUPC)
24	Julian Dalika	Care Tanzania
25	Robert Masabile	TNRF
26	Deusdedit Kalenzi	SRMP Consultant
27	Zakaria Faustini	TNRF
28	Madubi M. A	CARE Tanzania

Possible Entry Points for Integration	Possible Objectives and Purposes of integration
National/District plans, strategies, investments, programmes and policies Sector programmes, plans, strategies	Establish enabling conditions and build capacity Engage stakeholders, raise awareness, build partnerships
Village / Community level projects development	Identify and assess relevant current climate hazards & associated risks and vulnerabilities. Awareness raising.
Project Cycle – planning and implementation	Identify and assess potential future climate hazards
Institutional decision making in an organisation Portfolio screening of development interventions	Evaluate need to modify development interventions Identify, prioritise and select risk management and/ or adaptation measures Implement measures
	Monitor & evaluate success of adaptation

Annex 3 – Theories of Change Diagrams

The following are theory of change diagrams developed with CSO's and community groups.

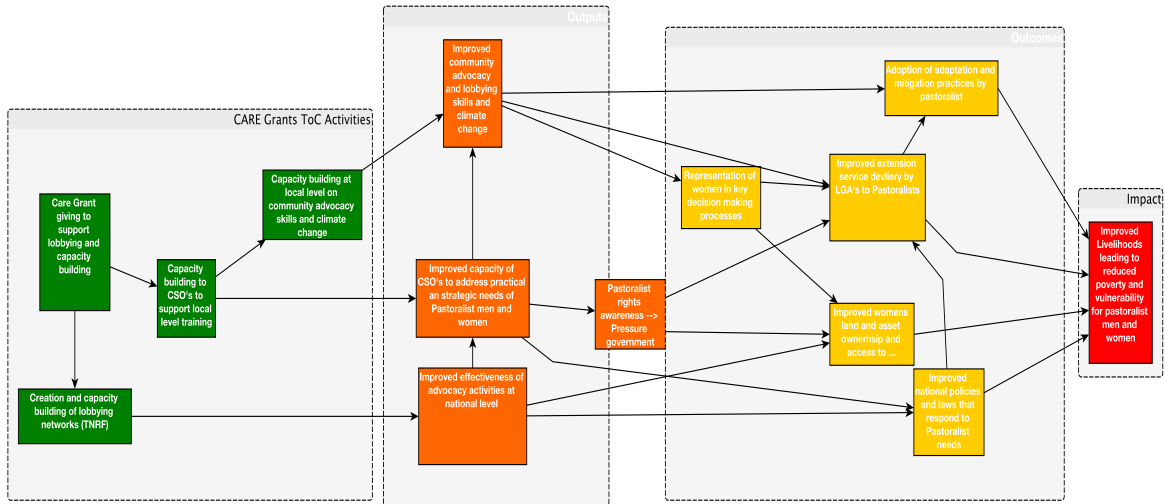


Figure 2: Simplified Theory of Change: Care/TNRF Pastoralist Programme

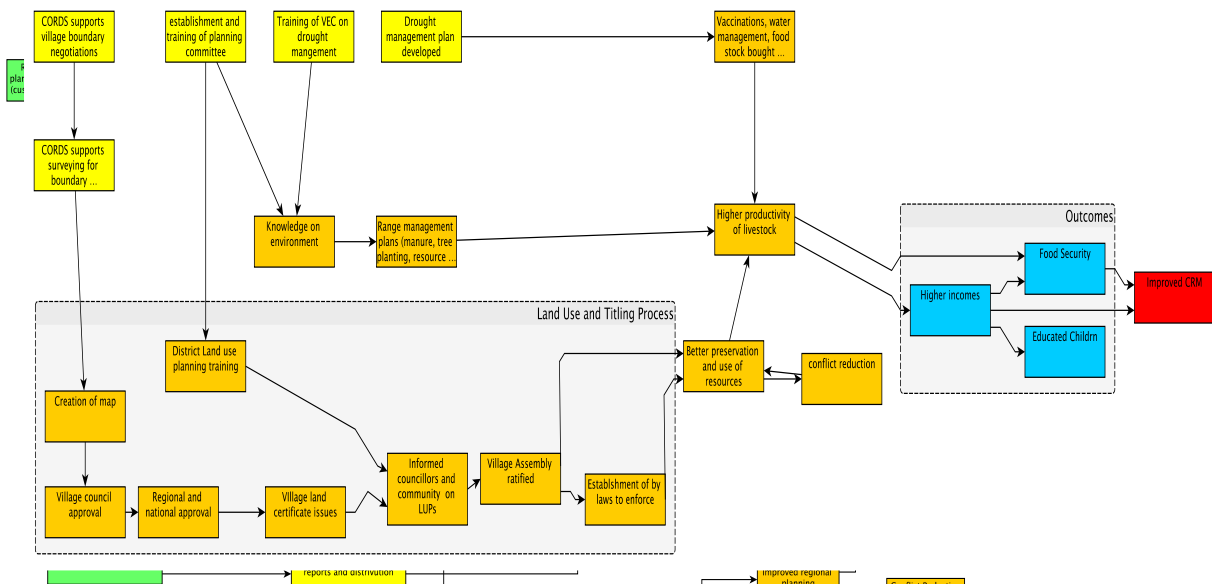


Figure 4: CORDS Community Diagram

Figure 3: IIED/HKC Theory of Change

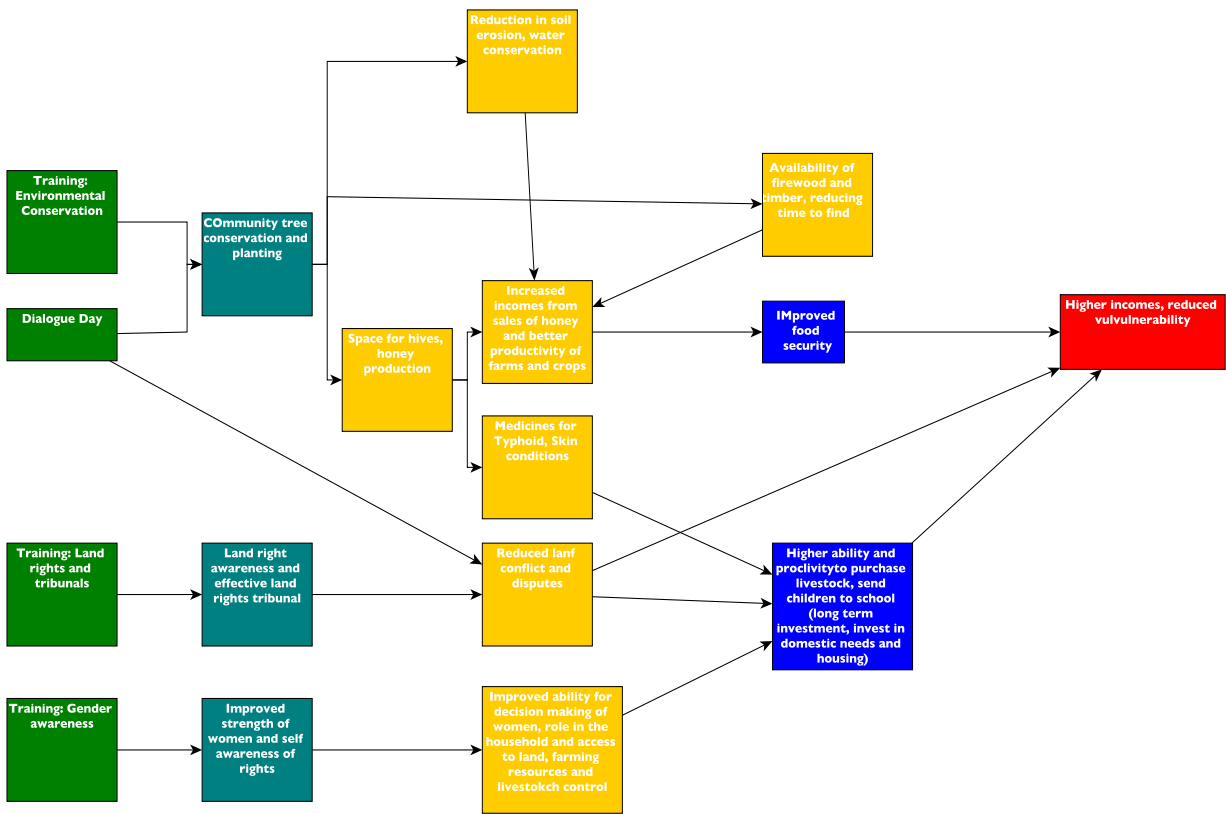


Figure 5: HUDESA Theory of Change

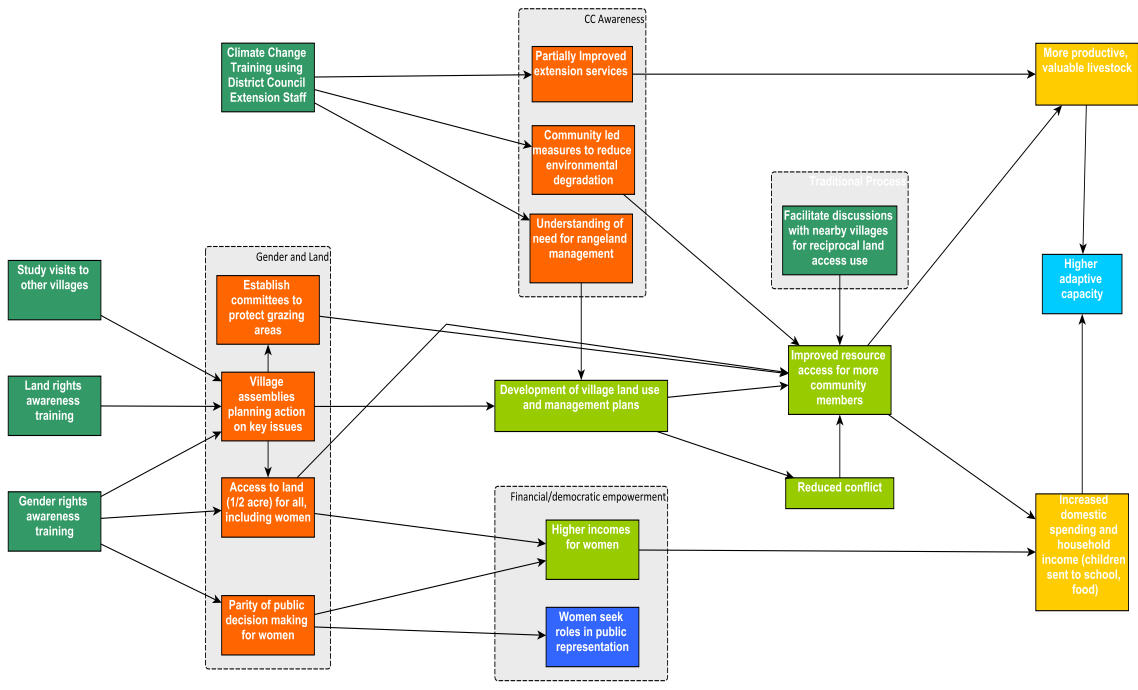


Figure 6: KINAPPA Theory of Change diagram

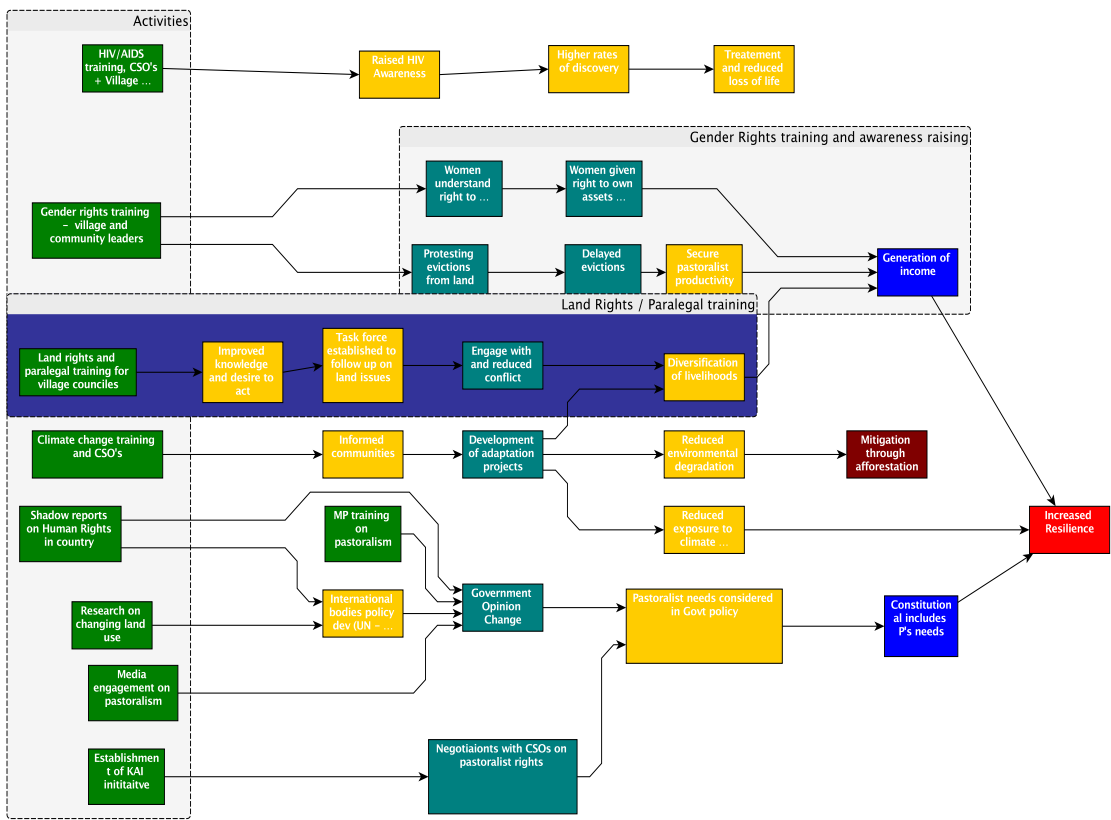


Figure 7: PINGOS Forum Theory of Change

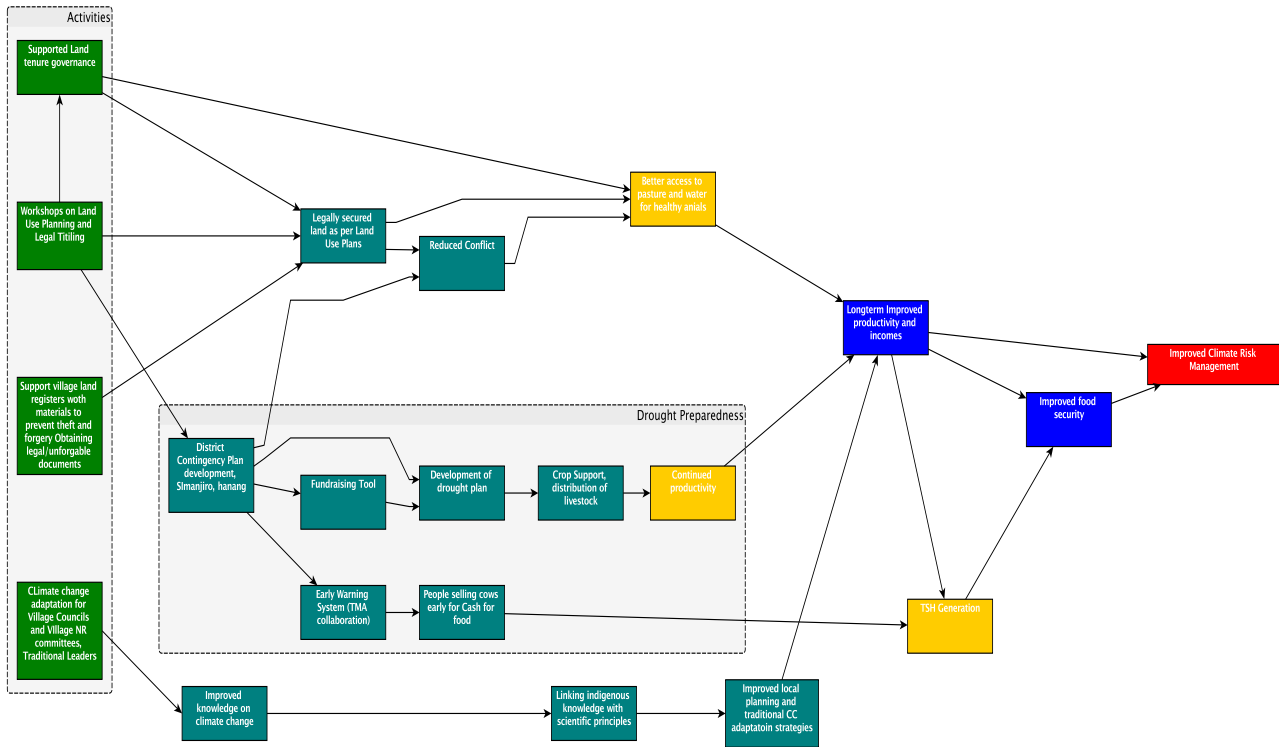


Figure 8: UCRT Theory of Change

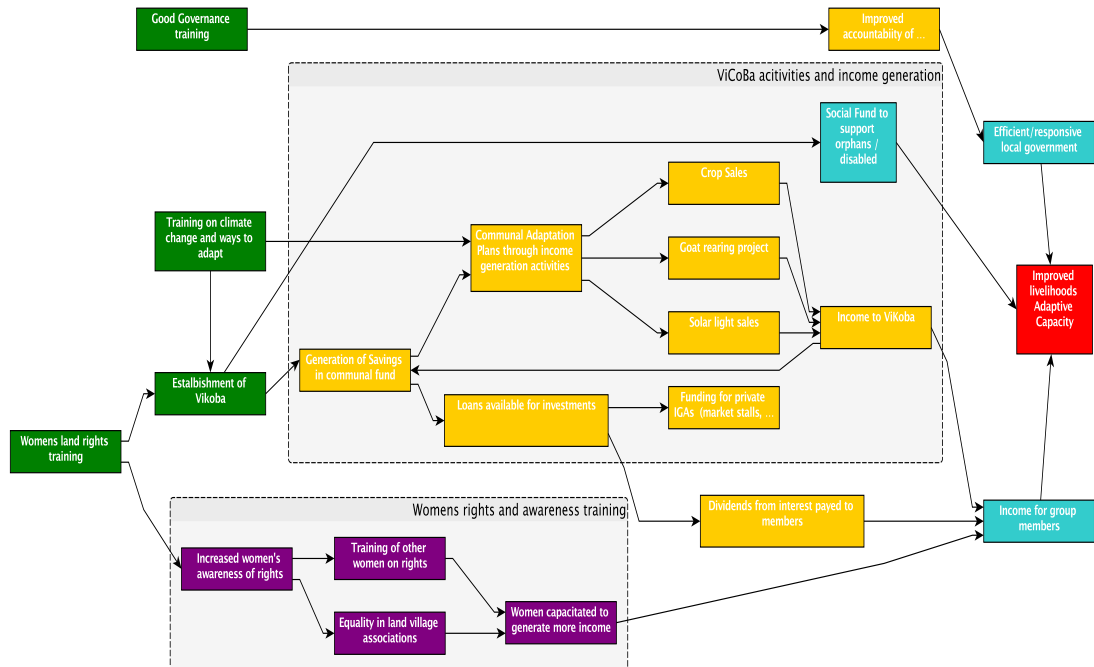


Figure 9: CEDESOTA Theory of Change