BUILDING DROUGHT RESILIENCE THROUGH LAND AND WATER MANAGEMENT IN ARID AND SEMI ARID AREAS, KENYA AND UGANDA (BDR) PROJECT – PHASE 2

FINAL EVALUATION REPORT, 29TH MARCH 2018

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ADA	Austrian Development Agency
ADC	Austrian Development Cooperation
ASALs	Arid and Semi-Arid Lands
ASF	ASAL Stakeholder Forum
BDR	Building Drought Resilience
CAO	Chief Administrative e Officer
CECF	Community Environment Conservation Fund
CG	Country Government
CIDP	Country Integrated Development Plan
CSO	Civil Society Organization
DANIDA	Danish International Development Agency
DFO	District Forest Officer
DINU	Development Initiative for Northern Uganda (the 11th EDF)
DLG	District Local Government
EDE	Ending Drought Emergencies
GOK	Government of Kenya
EWS	Early Warning System
IGAD	Intergovernmental Authority on Development
IUCN	The International Union for Conservation of Nature
KFS	Kenya Forestry Service
KWS	Kenya Wildlife Service
LC	Local Council (Uganda 2, 3 5. Parish, Sub county & District level respectively)
MAAIF	Ministry of Agriculture Animal Industry and Fisheries (Uganda)
M&E	Monitoring and Evaluation
MWE	Ministry of Water and Environment (Uganda)
NARO	National Agricultural Research Organization
NDMA	National Drought Management Authority
NDP	National Development Plan (Uganda)
NEMA	National Environment Management Authority
OPM	Office of the Prime Minister (Uganda)
PRA	Participatory Rural Appraisal
PRDP	Peace Recovery and Development Plan (Uganda)
SCMPs	Sub Catchment Management Plans
UGX	Uganda Shillings
WRA	Water Resources Authority – formerly Water Resources Management Authority (WRMA)
WRUA	Water Resource User Associations
WSTF	Water Services Trust Funds

EXECUTIVE SUMMARY

This report is an output of the final evaluation of the *"Building Drought Resilience (BDR) in the Arid and Semi-Arid Landscapes of Kenya and Uganda Project-Phase 2",* commissioned by the International Union for the Conservation of Nature (IUCN) and carried out by Euro Africa Consult Ltd. The assignment took place between February 8th and March 29th 2018 and its purpose was to assess the achievement of the project objectives under BDR 2 and to use the outcome to guide the development of a new programme. The final evaluation was designed to:

- Assess progress, performance, achievements, impacts and lessons learnt in order to feed into the BDR programme;
- Evaluate learning and improvement opportunities created by the project as building blocks for future work by the International Union for Conservation of Nature (IUCN) and partners;
- Assess the project management's accountability in the use of project funds and whether project plans were fulfilled and whether implemented actions and interventions have been successful;
- Examine the sustainability of activities, approaches, and structures initiated or supported by the project for purposes of long-term viability of outcomes and impacts of the project; and
- Make recommendations from the findings that will help in determining the scope of the future BDR programme in resilience-building in the Arid and Semi- Arid Lands (ASALs) of Kenya and Uganda.

The final evaluation utilized a cascading approach, starting with desk reviews of pertinent literature[1] followed by focused interviews with the project staff, direct beneficiaries and key informants as well as other key stakeholders. Community interviews were conducted to get qualitative data from women, youth and men separately. In addition, Participatory Rural Appraisal (PRA) tools were used to assess changes that have taken place as a result of the project. The same was done with regulatory bodies such as the Water Resources Authority (WRA) in Kenya and the Directorate of Water and Environment (DWE) in Uganda.

Final Evaluation Findings at a Glance

The project has generated evidence strongly linking improved environmental protection and conservation with livelihoods diversification. This was effectively enabled by the Community Environment Conservation Fund (CECF), with women and youth benefitting the most. Additional catalytic effects of CECF were seen in improved vegetation cover, reduced conflicts and wealth growth through livestock ownership and small business enterprise development, among other effects.

The project has also effectively interfaced formal governance structures with customary institutions, a nexus that is rarely identified and taken into account by most development actors. It only makes sense that IUCN, together with relevant government ministries and departments, and other stakeholders, scale up activities and benefits of the BDR 2, not just in its current project locations but also to other ASAL ecosystems in the two countries, as appropriate. IUCN can do this directly or through other actors; leveraging strategic partnerships and developing its "*impact at scale agenda*'. It is also suggested that IUCN further strengthens collaboration with key institutions at national and regional levels for greater impact in resource mobilisation, lesson learning, documentation and dissemination of good practice for influencing policy and practice.

Result *1*: *Inclusive governance and self-organization at community level over land, water and other resources within catchment areas is improved*

Involvement of all stakeholders and different groups in the community promoted a strong sense of ownership of project activities. Most stakeholders[2] (e.g. government departments and specialised government institutions- *see Annex IV*) expressed satisfaction with the project progress, strategies and outcomes. Communities also appreciated IUCN for actively involving them at every step and acknowledged the high level of organisation, effective engagement and implementation of BDR 2 activities.

The evaluation team also established that the Sub Catchment Management Plans (SCMPs)[3] and resource maps were developed in a participatory manner with inputs from the community members, including women and youth. In developing SCMPs, partners including Water Resources Authority (WRA), Agriculture and Livestock

[1] BDR 2 Project Proposal, Baseline Survey Report, Project M&E Plan, Mid Term Review Report and Other Publications

[2] Examples- Kenya Wildlife Services, Kenya Forestry Services, Water Resources Authority (WRA) and National Drought Management Authority

[3] Some government officials, while appreciating the production of SCMPs and resource maps, expressed concern that some of them were not actively involved and stated that such omissions may slow down their endorsement

Departments, Forest Services in both countries, Directorate of Water and Environment (Uganda), Public Health Departments and District/County Local Administrations were fully involved for 2 weeks as required under the Water Act. The by-laws and traditional governance systems are critical in supporting conservation activities around these catchments. Uganda, compared to Kenya, achieved higher official and formal approval rates of the by-laws.

A few challenges frustrated project progress in this result area. Examples included the tendency of some government departments to frustrate each other e.g. the case of local administrators (*chiefs and other environmental stewards*) in Garissa County arresting criminals who cut down trees for illegal wood harvesting and charcoal burning but upon handing them over to the police, the same people quietly being released soon after.

Result 2**:** *The integrity, diversity and functioning of natural (ecosystems/ catchments) and built infrastructure (Sub-surface dams, boreholes) are improved/ rehabilitated*

The final evaluation team found evidence of built (*or on-going*[4] *construction of*) infrastructure (*e.g. sub surface dams, sand dams, boreholes and plants for Shea butter processing*) supported by the project. On the Kenya side, the project areas were affected by continuous drought for almost four years in a row, resulting in the efficacy of some of the structures developed e.g. sub-surface dams and sand dams not being tested for lack of sufficient water runoff. There was, however, one dam that demonstrated the capacity to hold water following one or two days of rain towards the end of 2017, as observed at the time of the evaluation in February-March 2018. This may be evidence of the good quality of the infrastructure constructed under the project. In Uganda, all the wetlands in the project areas have experienced notable levels of restoration. Specifically, the project facilitated refurbishment of one water source in Barlwala village in Arwotngo. The water source was already providing clean and safe water to over 86 households. The Orit swamp had also been restored, and didn't dry up during the past dry season, implying successful rehabilitation for resilience building.

Result 3**:** *Livelihoods diversification and market development that promote resilience are enhanced*

Through the Community Environment Conservation Fund (CECF), participating households accessed funds to freely invest in their own small business development initiatives. These have led to diversification of livelihoods in many project locations. Most of these enterprises have had a positive effect on environmental protection, conservation and restoration. For example, households formerly dependent on poor methods of charcoal production and indiscriminate cutting of trees have resorted to more viable and eco-friendly business activities, courtesy of the environmental conservation by-laws. In Kenya, beneficiaries received CECF support to get into various value chains such as trading in live goats, camel milk and micro businesses. In Uganda, the beneficiaries were supported to bulk, sell and process Shea nuts. At the time of the final evaluation, two value addition Shea processing plants were still under construction. There is a strong link between the CECF and diversification of livelihoods.

Result 4**:** *Multi-stakeholder engagement, participation, learning and political support to enhance effective resilience are achieved at county/ district levels*

Working closely with various stakeholders, the project successfully supported the development of enabling laws on the governance of environmental and natural resources. The four bills developed in Kenya were validated by the stakeholders and submitted to the respective County Assemblies[5] for deliberation. The Garissa County Assembly was discussing two of these Bills at the time of the final evaluation. The slow speed of legislation in Kenya was reportedly linked to concerns by law makers that the bylaws didn't cover all administrative units[6]. Uganda was more successful in this regard as many by-laws had been passed by the respective District Assemblies. The project also supported "*action learning and lessons learnt*" events, as part of the important activities under this result area, enabling learning and the modification of approaches used in fine-tuning work plans.

[4] Ideally, all construction works (*like most trainings*) should have been accomplished in the first year (*or early in the 2nd year*) so that during years 2&3 the project staff would basically monitor, guide, mentor and coach the beneficiaries and undertake lesson learning.

[5] In the next phase of the programme, it will be useful to include policy makers at county level in the capacity building plan so as to sensitize them on various project aspects and thereby influence them to support.

[6] For successful project delivery, it is important to understand the political environment. Politicians at the County Assembly who legislate on environmental bylaws also have their political interests. They should be actively involved in all critical conversations right from the grassroots.

Relevance
In terms of relevance of the project to community needs, IUCN built on lessons from BDR Phase 1 in designing the BDR Phase 2. Communities as well as other stakeholders were fully involved in the BDR 2 design process and through various forums community and stakeholder inputs were captured and incorporated into the design. There was a feeling community feeling at the time of the final evaluation that the project was very relevant to the real needs of target groups. The Theory of Change (ToC) approach of analysis greatly assisted the design of the BDR 2.

Effectiveness
The BDR 2 design was aligned to national priorities of "*Ending Drought Emergencies (EDE)"* and building resilience in both countries. At the local level, the plans were further aligned to local priorities for action through the County/ District Steering Groups (C/DSGs). The project had a well-articulated project proposal and logical framework, complete with clear indicators and an M&E plan to track performance. Effectiveness was also strengthened through the use of local institutions, approaches and technologies which the project beneficiaries were already familiar with. The strategy of partnering with key government departments as well relevant regulatory bodies enabled project outputs to be more easily delivered to beneficiaries and is likely to enhance sustainability.

Efficiency
In terms of efficiency, project performance was mixed. Whereas the project deployed the right resources at various levels (*technical, financial, human, community structures, government linkages, partnerships and networks*) some outputs were not delivered on time as seen at the time of the final evaluation. In both countries some construction works were still going on (*e.g. Shea butter processing facilities in Uganda and sand dams in Kenya*). Under such scenarios, it becomes hard to ascertain the quality of the final outputs as they will be completed outside the project period. The project could have delivered more to time and budget through proper scheduling and sequencing of activities as well as ensuring activity plans were developed, regularly reviewed and adjusted accordingly. However, the implementation strategy employed e.g. using government staff and funds maximised the use of available resources to benefit communities and other target groups.

Project Outcomes and Impact
In many places, there was clear evidence of successful environmental conservation practices, including restoration of vegetation cover. Because of strict adherence to SCMPs and by-laws, there has been a positive change in people's behaviour, attitude and practice with respect to the environment, water resources management, etc. This feeds into the **Sustainable Development Goals** (**SDG Target 15.3**)[7].

Through the PRA exercises, it was established that the people's knowledge levels (*supported by the many learning visits, tours and seminars*) had increased, leading to improved awareness and commitment to environmental conservation and restoration issues. The fact that local communities were already willingly complying with the rules and guidelines from the Water Resources User Associations (WRUAs) in most places was evidence that local communities owned project activities, signifying a good score for environmental conservation and management.

Sustainability
Sustainability has not been realised as yet because it was still too early to judge this at the time of the final evaluation. But a strong basis has been established for sustainability e.g. through: (I) strong customary institutions; (II) broad base of supportive stakeholders; (III) good networking and collaboration with government and regulatory bodies; (IV) land use and resource maps; (V) by-laws; (VI) community training and skills transfer; (VI) community ownership and development of local institutions, especially focusing on ecosystem-based promotion, diversification and enhancement of alternative livelihoods e.g. through market development and participation.

Coordination and Coherence
The project coordinated well with similar initiatives from the governments of Kenya and Uganda to enhance synergy and optimization of available resources. Good examples were provided by instances where WSTF provided funds to the Water Resource User Associations (WRUAs) with supervision from the WRA. The money financed

[7] **SDG Target 15.3**: "By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation neutral world".

specific activities identified in the SCMPs and endorsed by the relevant grassroots committees through business planning. Another example is where the Kenya the government also injected Euro 114,365 into the project via WSTF.

Lessons Learned

#	**Lesson**
1	The IUCN Resilience Matrix is a relevant and powerful tool for replication and up scaling
2	Incentives for community involvement in ecosystem conservation activities are crucial for successful project take-off
3	With hindsight, BDR 2 should have had a stronger national level engagement in each country
4	Synergy and coherence between the resilience framework and the project result areas is very important
5	Good water management is a powerful entry point for environmental conservation and restoration
6	Coordination, collaboration and partnerships are important in environmental protection projects and programmes
7	Community capacity building and empowerment are critical determinants of project success
8	The Austrian Development Agency's strategy and donor approaches promote synergy and sustainability
9	Stronger working relationships with government Ministries, Departments and Authorities in conservation is key
10	Extension services at the community level could be provided more efficiently by government staff

Conclusion

The project has registered many positive outcomes and early impacts. The evaluation team gives BDR 2 an overall rating of 82.17% (very good). The project was relevant to the needs of the target groups in both countries; project activities were well formulated based on IUCN's disaster resilience framework and the BDR2 significantly benefited from BDR 1 lessons and experience. Althought it is still early to judge sustainability of project results and benefits over the long-term, pointers already exist, largely from community empowerment, capacity building, support from government and the wide stakeholder participation. Historical factors that affected communities in the project area led to high vulnerability of livelihoods to natural and man-made disasters, making recovery of livelihoods strategies and resilience building untenable over a 3-year period of a project such as this one.

The final evaluation team observes that there are many good practice models developed under the BDR 1 and 2 e.g. linking ecosystem conservation, restoration and management to diversification of local livelihoods, small business enterprise and market development, which although in their early stages, have potential for replication and scaling up, if more time and resources are provided. The evaluation team has suggested and developed a *Concept Note* for formulating a new programme, "*Building Resilience to Climate-related Disasters in the Arid and Semi-Arid Landscapes of Kenya and Uganda"*. This proposed programme has a longer time of 7 years to consolidate, scale up and secure the sustainability of outcomes and benefits.

Recommendations

1. For a mature project like BDR 2, move from project-based to programme-based approaches to scale up and adopt a results based programme approach to strengthen the focus on outcomes and impacts as opposed to outputs and activities[8];
2. Scale up CECF to reach more people and locations; and diversify livelihoods options. CECF can be designed to stand alone;
3. Strengthen and broaden the targeting of important groups of stakeholders e.g. law enforcers and decision makers at county /district/national levels;
4. Strengthen community engagement through expanded extension service delivery and capacity building; and
5. Strengthen collaboration with key national and regional bodies on matters climate change, resilience building and disaster risk reduction.

[8] This is informed by the fact that the BDR 2 log frame focused more on outputs than higher level results. And indeed some constructions were still going on at the time of the final evaluation.

1. BACKGROUND AND INTRODUCTION

1.1 About IUCN

The International Union for Conservation of Nature (IUCN) is a membership Union uniquely composed of both government and civil society organizations. It provides public, private and non-governmental organizations with critical knowledge and tools that enable human progress, economic development and nature conservation to take place together. Created in 1948, the IUCN has evolved into the world's largest and most diverse environmental network. It harnesses the experience, resources and reach of its 1,300 member organizations and the input of some 15,000 experts and is now considered the global authority on the status of the natural world and the measures needed to safeguard it while, concurrently, finding pragmatic solutions to pressing environmental and development challenges. IUCN has three programme areas, namely:

1. Valuing and conserving nature;
2. Promoting and supporting effective and equitable governance of natural resources; and
3. Deploying nature-based solutions to global challenges in climate, food security and economic and social development.

The IUCN's Eastern and Southern African Regional Office (ESARO) has thematic programmes with various projects in the region. One such project in Kenya and Uganda is "*Building Drought Resilience through Land and Water Management* (BDR)" funded by the Austrian Development Agency (ADA).

The first phase of the project was implemented from 2012-2014 in two catchments- Lower Tana (*six sub-catchments in Balambala in Garissa County and Tana North in Tana River County*) and Aswa Agago (*Lira, Otuke, Alebtong, Agago and Amuria Districts*) in Kenya and Uganda respectively. These are ASAL in nature, with communities within the catchments facing multiple challenges including recurrent droughts and floods; and resource-use conflicts that hinder development and livelihood wellbeing. The project was aimed at building resilience of dryland communities within the river catchments to the impacts of increasingly severe and frequent droughts. The approaches included the use of strengthened ecosystems management and adaptive capacity using IUCN's resilience framework as the building block. BDR 1 was a success and led to recommendations to scale up in the second phase (BDR 2).

1.2 The Project and Target Group

BDR 2 was designed to consolidate the gains from BDR 1 and scale up in six sub-catchments in Lower Tana Basin in Kenya and five districts in Upper Aswa-Agago Basin located in the Nile Water Management Zone in Uganda.

In Kenya, the project was implemented in partnership with WRA, the County Governments of Garissa and Tana River; and relevant national government agencies and ministries operating at the local level[9]. The partnership with the local NGO FaIDA was discontinued at some point due to performance related concerns. The project continued to support WRA (formerly WRMA) in Tana River to implement its Catchment Management Strategy especially in Lower Tana Catchment through the development and implementation of adapted sub-catchment management plans for ASALs. The project beneficiaries in Kenya included traditional pastoralist groups, formalized water resource user associations and other formal and traditional natural resource management institutions. The direct beneficiaries under BDR 2 were 75,000 compared to 45,000 under BDR 1. The sub-catchments were increased to 6 under BDR 2 (*up from 4 during BDR 1*). The new sub-catchments were Bangale and Kasha; while the initial 4 were Tula, Al-Amin Moju, Saka and Khorweyne.

In Uganda the direct beneficiaries were 75,000 within a resident population of about 1.2m people in the Upper Aswa-Agago Catchment area. While BDR 1 worked directly with 56,000 people in three districts (*Alebtong, Lira and Otuke*), BDR 2 scaled it up to reach an additional 75,000 people in the two upstream districts of Amuria and Agago.

[9] These were agriculture, livestock, water, irrigation, forestry and wildlife

The local partners in Uganda included the Upper Nile Water Management Zone under the Directorate of Water Resource Management and the District Local Governments (DLGs) mandated to manage environment, land, water and other natural resources.

The overall objective of the BDR 2 was to build resilience of dryland communities to increasingly severe and frequent droughts; and floods. This was designed to be implemented within well-managed river catchment ecosystems in order to achieve four key results stated in the project documents as:

- **Result 1:** Inclusive governance and self-organization at community level over land, water and other assets within catchment areas is improved;

- **Result 2:** The integrity, diversity and functioning of natural (ecosystems/ catchments) and built (Sub-surface dams/boreholes) infrastructure is rehabilitated/improved;

- **Result 3:** Livelihood diversification and market developments that promote resilience are enhanced;

- **Result 4:** Multi-stakeholder engagement, participation, learning and political support to enhance effective resilience is achieved at county/district level.

1.3 The final Evaluation of the BDR 2 Project

1.3.1 Purpose of the Final Evaluation

The purpose of the final evaluation was to assess the achievements of the project objectives under BDR 2 and to use the outcome to guide the development of a new BDR programme (BDRP); including identification of funding modalities to set up the programme and provide respective recommendations i.e. moving from a project based small scale operation to a large scale programme based approach for the ASALs of Kenya and Uganda.

1.3.2 Scope of the Final Evaluation

The final evaluation was designed to:

- Assess progress, performance, achievements, impacts and lessons learnt in order to feed into the BDR programme;
- Evaluate learning and improvement opportunities created by the project as building blocks for future work by IUCN and partners;
- Assess the project management's accountability in the use of project funds and whether project plans were fulfilled and whether implemented actions and interventions have been successful;
- Examine the sustainability of activities, approaches, and structures initiated or supported by the project for purposes of long-term viability of outcomes and impacts of the project; and
- Make recommendations from the findings that will help in determining the scope of the future BDR programme in resilience-building in the ASALs of Kenya and Uganda.

1.3.3 Approach and Methodology

The study adopted a cascading approach, starting with desk reviews of pertinent literature followed by focused interviews with the project staff, direct beneficiaries and key informants as well as other key stakeholders. Community interviews were conducted to get qualitative data from women, youth and men separately (*see Figures 1 & 2*). And using the framework below (*Figure 3*), the study team assessed the extent to which BDR 2 achieved its key results (*outcomes and impacts*).

In addition, PRAs tools were used to assess changes that have taken place as a result of the BDR 2 project as perceived by different interest groups at community level. Institutional mapping was done to generate a deeper understanding of the key actors at the local level, whether directly or indirectly involved in BDR activities. Further,

trend analyses were done to assess the outcomes (*whether positive or negative*) that have resulted from BDR project activities. Key informant interviews were also conducted with opinion leaders such as area chiefs, teachers, civil servants and decision makers at various levels (*local, county and national*). The same was done with regulatory bodies, research and academia.

Figure 1: PRA exercise- male and female FGD (final evaluation of BDR 2)

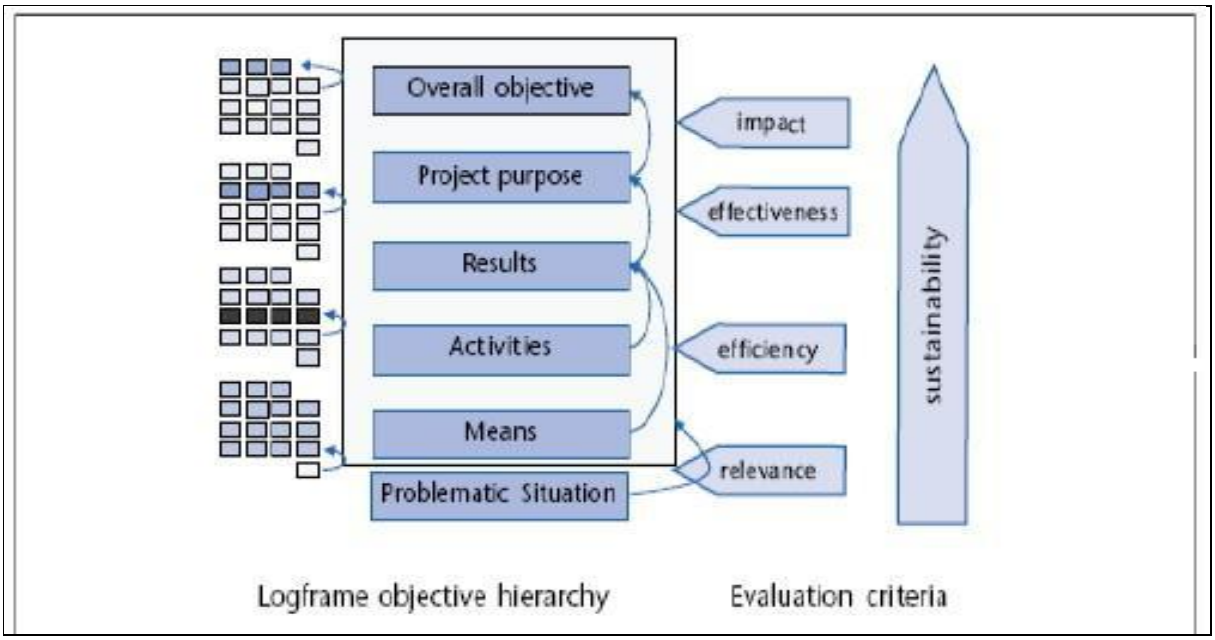

Figure 2: Evaluation Grid

The evaluation also utilized a participatory approach that ensured social inclusivity and gender-awareness to the greatest extent possible. In both countries, extensive field visits were made to different sub-catchments to practically see and appreciate the most significant changes that had taken place as a result of BDR project activities. Where other important respondents were not available for direct interviews, electronic formats were utilized instead. A scoring of the logical framework (*See Table 2*) was also done as an integral part of the evaluation.

1.3.4 Limitations, Constraints and Challenges

The major constraint faced by the consultants was time insufficiency. For a two-country project evaluation, more time would have been appropriate to accord the study team the flexibility to undertake more in-depth assessments at each project location. The net effect of the limited time meant that interviews/ group discussions had to be rushed. For a final evaluation of such a project, a minimum of 2 weeks would be recommended for field

work in each country. That would afford the final evaluation team enough opportunity to fully immerse themselves and interview more beneficiaries while utilizing a richer mix of evaluation instruments[10] to ensure adequate breadth and depth.

2. FINDINGS OF THE FINAL EVALUATION

2.1 PROJECT DESIGN

2.1.1 Project Approach

The project approach was derived from IUCN's appreciation of the role of grassroots institutions and actors when it comes to resilience building and sustainable governance and utilization of natural resources. This also resonated well with **Principle 2[11] of the Ecosystems Approach of the Convention on Biological Diversity** which states that "*management should be decentralized to the lowest appropriate level*".

More often than not, decentralized systems lead to greater effectiveness, efficiency and equity. The management of resources should therefore involve all stakeholders and balance local interests with the wider public interest. The closer management is to the ecosystem, the greater the responsibility, ownership, accountability, participation, and use of local knowledge.

To actualize the above, IUCN developed a Resilience Analysis Framework for climate change through which strengthening resilience to drought and floods could be better understood. Strengthening resilience means focusing on those elements which enhance sensitivities or exposure of the livelihood systems (*or, conversely, decrease its adaptive capacities*). Building resilience in BDR was operationalized through four main pillars (*Figure 2 below*).

Diversity of the economy, livelihoods and nature: Diversifying livelihoods and the use of natural resources can provide people living in drought affected areas with the alternatives they need to be adaptive to a changing environment. This can include improving access to markets to buy and process livestock, diversifying crops and livestock to include varieties less prone to drought, and conserving biodiversity to ensure the availability of ecosystem services such as storage of water in wetlands, which are vital during drought periods for livestock and agricultural needs, as well as human consumption.

Sustainable infrastructure and technology: Using approaches that integrate ecosystem services and combine appropriate design and operation of engineered infrastructure and the 'natural infrastructure' of ecosystems. This can include rehabilitation of existing water points combined with investment in natural infrastructure such as maintaining the river, but they need to be planned in a way that does not result in mal-adaptation.

Self-organization: Strengthening the rights of local people and their representative institutions to effectively manage and utilize their own resources results in more sustainably managed resilient ecosystems. This includes special attention to women and the needs of vulnerable groups who often rely heavily on natural resources for their livelihoods. Bringing together traditional and regional institutions can provide a platform to recognize the priorities of the people dependent on dryland areas for their livelihood, and how the ecosystems that provides key goods and services can be sustained.

Learning: Improved land and water management can be achieved through a variety of learning approaches including raising awareness and ensuring that individuals and institutions can use new skills and technologies

[10] This would include household interviews to capture quantitative data

[11] http://www.cbd.int/ecosystem/principles.shtml)

needed to adapt to a changing environment. Lessons can also be used to influence policy especially if a demonstrated approach is practical, replicable and has the potential to be scaled up.

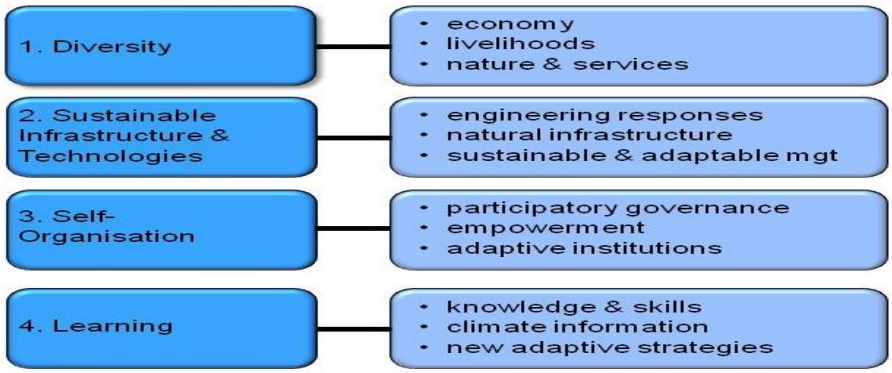

Figure 3: Four Pillars of Resilience (IUCN)

2.1.2 Project Logic and Indicators

The overlaying of IUCN's Resilience Pillars on the BDR 2 project result areas provides a clear link between the project logical framework (*complete with its objectives, impacts, outcomes, outputs, activities and inputs*) on the one hand; and the ability to measure project progress on the other as illustrated in Table 1 (*below*).

Table 1: Resilience Pillars Versus BDR 2 Result Areas

Pillar	Resilience Pillars	BDR 2 Project Result Area	Indicators	Status
1.	Diversity of options to invest into livelihoods and ecosystems	Result 3: Livelihood diversification and market developments that promote resilience are enhanced.	11 livelihood diversification activities supported through CECF implemented and functional One value chain study that promote development of market opportunities for dryland natural produces undertaken	Done Done
2.	Sustainable infrastructures and technologies	Result 2: The integrity, diversity and functioning of natural ecosystems and catchments plus built infrastructure improved (*Sub-surface dams, boreholes*)	12 water infrastructures that enhance access and balanced pasture/browse utilization and domestic use sustainably are maintained; and execution of CECF with communities in 11 sub-catchments	Done (*a few were still on-going during final evaluation*)
3.	Self-Organization	Result 1: Inclusive governance and self-organization at community level over land, water and other assets within catchment areas is improved.	4 ASCMPs that identify priority actions that build community resilience are developed. 4 community resource maps that shows the current situation and future interventions that enhance sustainable resource utilization and management developed 4 workshops that highlight the importance of bylaws and capacity build the actors who implement and enforces them	Done Done Done
4.	Learning	Result 4: Multi-stakeholder engagement, participation, learning	4 Bills[12] for legislation to enhance natural resource governance at local level supported by county developed Four stakeholder forums on participatory land use conducted to	Done

[12] The four Bills focus on charcoal, forest, wildlife and environment

		and political support to enhance effective resilience is achieved at county/district level.	facilitate resource tenure and access for vulnerable community members including women	Done
			4 action learning and lesson learnt events organized (women adequately represented) to disseminate best practices and lessons emanating from the project for adoption and up scaling	Done

2.2. PROJECT ACTIVITIES AND RESULT AREAS

To deliver its vision, the project identified four key result areas. And to operationalize each result area, the project formulated and implemented specific activities in the different project locations as outlined below:

2.2.1 Result *1*: *Inclusive governance and self-organization at community level over land, water and other resources within catchment areas is improved*

Activities

- Development of adapted SCMPs for ASALs through participatory approaches including mapping in the expanded sites in Kenya and Uganda;
- Implementation, enforcement and capacity-building around existing and new bylaws in Kenya and Uganda;
- Exploration of mechanisms to ensure that ASCMPs are appropriately recognized in district/county land-use plans; and
- Gender analysis, identification and implementation mechanisms for equitable engagement for women, youth and the elderly to improve their resilience

2.2.1.1 General evaluation findings on this result area

Involvement of all stakeholders and different groups in the community promoted a strong sense of ownership of project activities. Most stakeholders[13] (e.g. government departments and specialized government institutions- *see Annex IV*) expressed satisfaction with the project progress, strategies and outcomes. The different stakeholders also appreciated IUCN for actively involving them at every step and acknowledged the high level of organization, effective engagement and implementation of BDR 2 activities. The project took into account the critical role of customary institutions and effectively rode on the same to implement its activities while concurrently building their capacity through various skills transfer approaches. This strategy attracted the active participation of the leaders at various levels and brought people together to play active roles in land, water and biodiversity management.

Women were also found to play lead roles (*including being active in leadership positions*) in the traditional governance structures and in WRUA's membership. Inclusive governance (*ensuring women, youth and minority groups played active roles*) was also achieved through the selection of committee members in every village to take care of different conservation activities e.g. tree planting, water conservation and waste management. Women also actively participated in the identification of beneficiaries of the Community Environment Conservation Fund (CECF).

The evaluation team also established that the Sub Catchment Management Plans (SCMPs)[14] and resource maps were developed in a participatory manner with inputs from the community members, including women and youth. In developing SCMPs partners including WRA, agric, livestock, KFS, KWS, water, public health and the local administration were fully involved for 2 weeks as required under the Water Act. The bylaws and traditional governance systems are critical in supporting conservation activities around these catchments. Uganda posted higher adoption rates of bylaws as most of them had been officially sanctioned compared to Kenya.

[13] Examples include Kenya Wildlife Services, Kenya Forestry Services, Water Resources Authority and National Drought Management Authority

[14] Some leaders, while appreciating the production of SCMPs and resource maps, expressed concern that some of them were not actively involved and stated that such omissions may slow down their endorsement. They wanted inclusion of their constituencies (*political angle*).

A few challenges frustrated project progress on this result area. An example was the reported tendency of some government departments to antagonize each other e.g. the case of local administrators (*chiefs and other environmental stewards*) in Garissa County arresting criminals who cut down trees for illegal wood harvesting and charcoal burning but upon handing them over to the police the same people were quietly (*and quickly*) released soon after.

Figure 4: Billboard Displaying Bylaws in Arwotngo, Uganda and Woodlot by a Beneficiary in Orit, Uganda

> "We feel very demoralized when different arms of government contradict each other instead of working in harmony, mutually reinforcing one another. Government institutions shouldn't work at cross purposes". *Chief-Balambala; Garissa County*. Similar sentiments were echoed by the Chief of Bangale (Tana River County)

The evaluation also found that the effectiveness, efficiency and impacts of the conservation efforts in Garissa County were much higher compared to Tana River because of closer integration with and support from key government departments. Whereas the Garissa landscape was rich with standing vegetation (*trees, shrubs and herbs/ forbs*), the ground was mostly bare (*exposed and denuded*) on the Tana River side.

The sharp difference was explained by the great unity of purpose at the grassroots on the Garissa side and the proactive involvement of entire communities in safeguarding the environment. Conversely, the law enforcers and resource management committees on the Tana River side weren't nearly as active; giving opportunists a window to (indiscriminately) cut down trees.

It was also observed by the evaluation team that the success of the conservation efforts on the Kenya project was increasingly being threatened by an invasive weed locally known as *Mathenge* (*Prosopis Spp.*). The weed spreads very rapidly and kills off other plant species.

The threats from this weed were noted to be two-fold: 1) - quickly killing off other plants, and thereby rapidly reduces the carrying capacity of the rangelands (*bad for livestock nutrition*); and 2) providing excellent hideouts for predators (*mostly hyenas*) that have killed many goats, sheep and cattle. Such mortalities occasioned by predators also negate the brilliant gains made by the project.

Some of the beneficiaries of the conservation funds lost all their goats to the hyenas yet the same had been bought using the revolving funds. That retards progress and deserves closer attention under the new programme.

2.2.2 Result 2: *The integrity, diversity and functioning of natural (ecosystems/ catchments) and built infrastructure (Sub-surface dams, boreholes) are improved/ rehabilitated*

Activities

- Implementation of, and community reflection on, the priority ecosystem restoration/management actions from sub-catchment management plans;
- Planning and installation of targeted, well-managed built infrastructure for water supply in balance with ecosystems in Kenya and Uganda; and

- Consolidating, expansion and further testing of the Community Environment Conservation Fund (CECF) as a sustained mechanism for communal SCMP for ASALs delivery

2.2.2.1. General evaluation findings on this result area

The evaluation team found evidence of built (*or on-going*[15] *construction of*) infrastructure (*e.g. sub surface dams, sand dams, boreholes and houses for shea butter processing*) supported by the project. On the Kenya side, the project areas had been hit by continuous drought for almost four years in a row; meaning the resilience structures developed under BDR 2 had not yet been tested or ascertained for fitness of purpose. In particular, the sand dams and sub-surface dams had not yet harvested water.

Figure 5: Fenced Borehole and Solar Powered Borehole in Uganda

There was, however, one dam that received rain water for a day or two end of last year and still had water at the time of the evaluation (*almost 3months after the brief rain spell*). That can be taken as a proxy indicator of the expected performance of the other water infrastructure that were constructed under the project. In Uganda, all the wetlands in the project areas have experienced notable levels of restoration.

The evaluation team also saw evidence of the SCMPs and resource maps that were developed in a participatory manner with inputs from partner institutions and community members, including women and youth. The bylaws and traditional governance systems were designed to support the conservation activities around the catchments.

The Water Resource User Associations were found to be functional, mostly well-organized, enthusiastic and active. They had clear leadership structures all filled through elections. They also had a good understanding of their roles and responsibilities. In terms of day-to-day functioning, the WRUAs had well differentiated committees and sub committees in charge of various functions e.g. environment oversight, finance and monitoring.

The WRUAs who were evaluated also showed good evidence of record keeping (water use fees, purchases/ spares, etc.). The choice of eco-friendly technologies (e.g. solar instead if diesel; sand dams and sub-surface dams instead of boreholes) was a distinct value add to effectiveness. The WRUAs had ambitious plans for expansion of the eco-friendly water facilities, improved collection of water user fees and organizational development.

In Uganda, most of the wetlands in the project areas had experienced notable levels of restoration and specifically, the project facilitated refurbishment of one water source in Barlwala village in Arwotngo parish, Otuke district. The water source was already providing clean and safe water to over 86 households within Arwotngo Parish. The Orit swamp had been restored and didn't dry up during the past dry season.

To corroborate the above, the community testified that there had been increased water and pasture availability for their livestock as well as increased capture fisheries. That was attributed to the training of 204 water source committees in the parishes of Akileng (Amuria district), Mutu (Agago district), Arwotngo, Ating, Anepkide, Angetta

[15] Ideally, it would be good to complete all the construction works during the first year (or at least by project mid-term) so that during the last half of the project life the project staff would basically monitor performance and utilization while guiding, mentoring and coaching the beneficiaries.

(Otuke parish) and Orit (Lira district) in water source management in line with Government of Uganda water source protection guidelines.

2.2.3 Result 3: Livelihoods diversification and market development that promote resilience are enhanced

Activities

- Carrying out an assessment of potential enterprises (*livestock, sustainable charcoal, eco-tourism, dryland products*) for supporting resilience and diversifying livelihoods;
- Supporting development of economic opportunities that enhance livelihoods' diversification;
- Exploring the use of the Community Environment Conservation Fund (CECF) as a mechanism for producer aggregation for sustainable and diversified livelihoods

2.2.3.1 General evaluation findings on this result area

Through the Community Environment Conservation Fund (CECF), diversification of livelihoods was realized in many ways that impacted positively on environmental protection, conservation and restoration. For example, many people who used to depend on indiscriminate cutting of trees and charcoal burning no longer do so.

The CECF supports some alternative livelihood strategies, income earning and regenerative environmental practices. In Kenya, beneficiaries received CECF support to get into various value chains such as trading in live goats, camel milk and micro businesses.

In Uganda, the beneficiaries were supported to bulk, sell and process shea nuts. At the time of the final evaluation, 2 processing plants were still under construction. They'll be used for value addition.

For pastoralists in ASALs, as livelihood vulnerability increases[16] due to droughts (*Figure 5 below*), more people fall off mainstream pastoralism yet their lives (*and those of their dependents*) must continue, hence their usual tendency to take shortcuts through illegal harvesting/ degradation of rangeland resources.

To arrest the situation and check the trend, the CECF successfully supported alternative livelihood strategies and income earning opportunities that compelled all recipients to undertake diverse environmental protection and conservation practices.

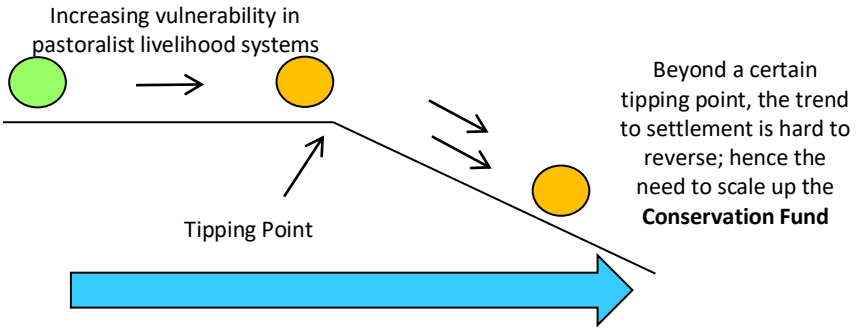

Figure 6: Livelihood Vulnerability
Source: Oxfam 2011- HECA Markets Based Programming for ASALs

As illustrated below (*Figure 10*), the dynamics at play in the ASALs lead to more and more people being bumped off the mainstream livelihood systems and, subsequently, increasing pressure on the limited survival options in their fragile ecosystems. The CECF therefore remains an effective and responsive programming tool for resilience

[16] Livelihood vulnerability manifested significant loss or erosion of the key capitals that define wellbeing (*physical, economic, social, natural, financial and human*) coupled with poor ability to cope (*low adaptive capacity*).

building, more especially if it can be better capitalized, scaled up and solely linked to environmental conservation activities. And there's room for a lot more as outlined under "*Lessons Learned- Section 4*".

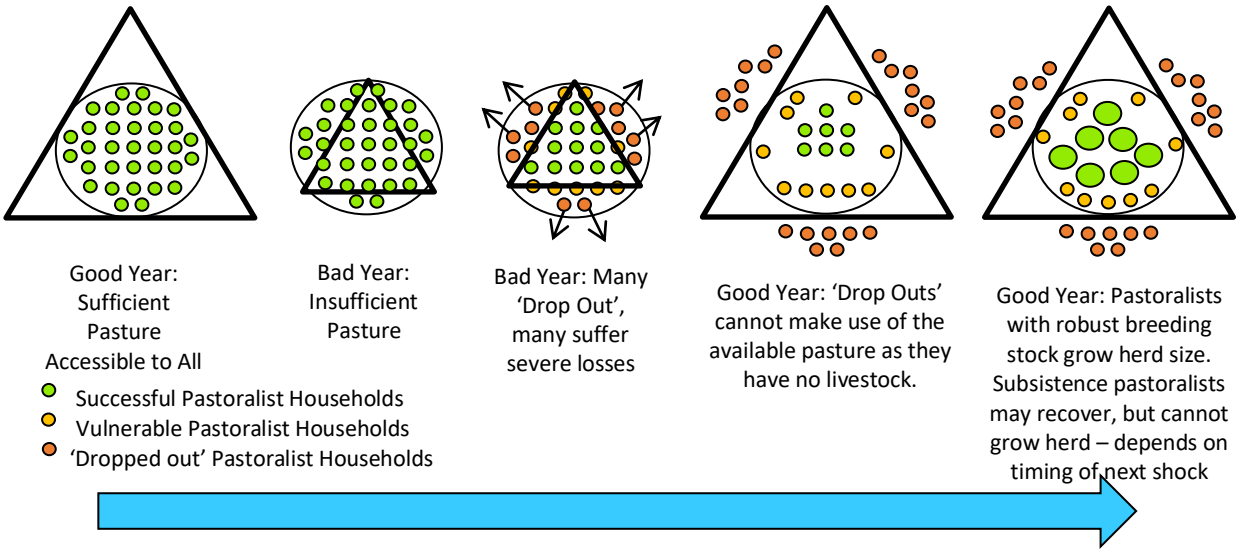

Figure 7: Fragile Livelihood Trends in Pastoralist Ecosystems
Source: Oxfam 2011- HECA Markets Based Programming for ASALs

2.2.4 *Result 4*: *Multi-stakeholder engagement, participation, learning and political support to enhance effective resilience are achieved at county/ district levels*

Activities

- Development of enabling laws on environment and natural resources governance at County levels (Garissa and Tana River) in Kenya;
- Strengthening of district/county level stakeholders forum work-plans and implementation of priority actions; and
- Organizing action learning and lessons-learned events (*with women adequately represented*) to document and disseminate best practices and lessons emanating from the project for adoption and upscaling

2.2.4.1 General evaluation findings on this result area

Working closely with various stakeholders[17], the project successfully supported the development of enabling laws on environment and natural resources governance. The four bills that were developed in Kenya were validated by the stakeholders and submitted to the County Assembly[18] for deliberation. But none of them had been passed at the time of the final evaluation. The slow speed of legislation in Kenya was reportedly linked to concerns by law makers that the bylaws didn't cover all administrative units[19]. Uganda was more successful in this regard as many bylaws were already in operation there.

The project also supported "*action learning and lessons learnt*" events as part of the important activities under this result area to deepen learn and modify delivery approaches. These contributed to enhancing partnerships and networking amongst communities, extension workers, government departments and other project partners. Regular sharing of results was also facilitated through these events in the project locations in Kenya and Uganda.

[17] Examples- project beneficiaries, community leaders, government line ministries, WRUAs, local leaders and administrators; KWS, KFS, etc.
[18] In the next phase of the programme, it will be useful to include policy makers at county level in the capacity building plan so as to sensitize them on various project aspects and thereby influence them to support.
[19] For successful project delivery, it is important to understand the political environment. Politicians at the County Assembly who legislate on environmental bylaws also have their political interests. They should be actively involved in all critical conversations right from the grassroots.

The project also succeeded in mainstreaming its activities into county/district level plans for funding and implementation. Over and above the various trainings, the joint learning visits that were carried out helped the various stakeholders to grow their individual and collective capacities for improved behavioral change in sustainable Environment and Natural Resources Management (ENRM). Good examples included the exchange visits between the project beneficiaries from Kenya and Uganda; and the exchange visit (*sponsored by WSTF/WRMA/DANIDA*) to Lake Naivasha Basin. There was also cross-country learning visits between Kenya and Uganda for example BDR 2 beneficiaries from Uganda visiting Mt. Elgon region and Kenya BDR 2 beneficiaries visiting Lira in Uganda.

BDR 2 also successfully strengthened stakeholder forums and built strong partnerships for the implementation of joint priority actions. Examples include the Tana Catchment Area Stakeholder Forum, Forest Conservation Committee and the ASAL Stakeholder Forums in Garissa and Tana River. The project also formed and supported the ASAL Stakeholder Forum (ASF) in Tana River and Garissa involving over 20 institutions. In effect, the ASF became a value add to BDR 2 as it brought on board more partners and, along with that, greater latitude for resource mobilization.

2.2.5 Comparison of Achievement of Results

Table 2: Log-frame Scoring

#	Expected Result/Outcome	Indicators of achievement	Actual results seen during field work	Score out of 5	Justification
1	Inclusive governance and self-organization at community level over land, water and other assets within catchment areas is improved;	4 ASCMPs/SCMPs for ASALs implemented and funding secured Evidence of utilization of previously developed resource maps 4 additional community resource maps developed 2 verified and harmonized by-laws developed for the project sub-catchments in Tana River and Garissa Counties Gender mainstreamed in all community plans and activities	Achieved in both countries	4	Evidence seen
2	The integrity, diversity and functioning of natural (ecosystems/ catchments) and built (Sub-surface dams/boreholes) infrastructure is rehabilitated/improved	Two participating communities validate water development infrastructure Two water infrastructures are strategically developed and utilized 12 water infrastructures maintained to enhance access and balanced pasture/browse utilization and domestic use Springs and community water points protection achieved at the identified water points in Uganda Functional CECF committees are in place in the 2 new sites in Aswa-Agago and Lower Tana respectively. Consolidation and expansion of CECF achieved in Kenya and Uganda.	Achieved Achieved Most of them done Achieved Achieved Achieved	3.5 3 4 3.5 4 5	Some challenges Some still in process As above Working progress Evidence seen Evidence seen
3	Livelihood diversification and market developments that promote resilience are enhanced.	Value chain study undertaken Livelihoods diversification and resilience building activities identified (per sub-catchment) and implemented by communities through support of	Achieved A few done	5 4	Evidence seen Limited fund

		CECF			
4	Multi-stakeholder engagement, participation, learning and political support to enhance effective resilience is achieved at county/district level.	Four pieces of legislation that enhance natural resource governance at local level developed and supported by county governments	Mixed status	3	Sub-optimal linkages at some levels of government in both countries; and county bills and by-laws not yet enacted in Kenya
		>50% of participating communities indicate enhanced capacity to manage their natural resource by using the adopted bylaws	Achieved	3.5	
		4 action learning events organized (with gender inclusion considered)	Achieved	5	Evidence seen
		4 stakeholder forums on participatory land use conducted to facilitate resource tenure and resource access	Achieved	5	Evidence seen
		1 ASAL forum's strategic activity which is linked to resilience building is identified and supported in Tana River and Garissa counties and Aswa-Agago area	Achieved	4	Progress seen
			Mean Score	**4.1**	**82.17%**
Justification for the score Although BDR 2 did well on several parameters, it is also a fact that some important pieces of work had not been concluded in both countries e.g. water infrastructure, processing facilities for shea butter, land reclamation, etc. The right approach is to ensure such capital works are executed upfront so that the project team and the beneficiaries have enough time to monitor their use, relevance, effectiveness and impacts.					**Good performance but could have done better**

Legend: 1 = Poor; 2 = Fair; 3= Good; 4 = Very Good; 5 = Excellent

3. PROJECT PERFORMANCE BASED ON EVALUATION CRITERIA

3.1 Relevance

Relevance relates to the project design and examines the extent to which the stated objectives address identified needs and problems of beneficiaries and other stakeholders. While designing BDR 2, IUCN went through a rigorous process of lesson learning from BDR 1 and also sought the views of its beneficiaries and other stakeholders to input into the formulation of BDR 2.

Similar views have also been echoed in similar ecosystems[20]. Through various community meetings and interviews important views were captured and incorporated into the project design. The project was therefore rated to be very relevant to the real needs on the ground. BDR 2 also had a clear theory of change.

The BDR 2 implementation methodology was also highly participatory and consultative; directly involving communities themselves and government departments in implementation. Partner institutions were also actively engaged. Combined, all the above optimized relevance. And because of that, the project beneficiaries had a very favorable impression of the project; saying the project outcomes touched their lives positively in the targeted areas *(evidenced by PRA findings- see Figure 11 below)*.

Additional evidence of project relevance also came in the form of beneficiaries requesting additional support for similar activities plus more activities that would supplement those already implemented.

[20] Morton, J. and Kerven, C. 2013. *Livelihoods and basic service support in the drylands of the Horn of Africa*. Brief Prepared by a Technical Consortium hosted by CGIAR in partnership with the FAO Investment Centre. Technical Consortium Brief 3. Nairobi: International Livestock Research Institute.

The biggest call was around the expansion of the CECF to target more beneficiaries and scale up individual allocations to enable beneficiaries to engage in increasingly larger income earning opportunities as they invest more time conserving the environment.

There was also maximum buy-in from the targeted beneficiaries, local leaders and government officials alike.

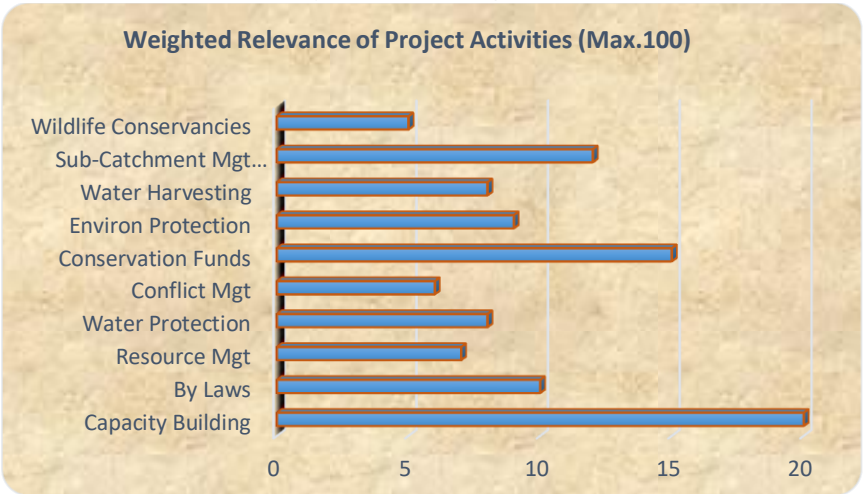

Figure 8: Focus Group Discussions (Bangale, Tana River County)

Table 3: Testimonies

Some Testimonies *A group of former IDPs, Arwotngo, Village Okwang Sub County, Otuke District* When we were cramped inside the Internally Displaced Peoples' camps, we were all destitute and relied on World Food Program. Upon disbandment of the IDPs, when we returned to the villages we resorted to massive charcoal burning for survival. The Shea trees were not spared either as they produce the best quality charcoal for the market. At the same time, we also cultivated wetlands for quick harvests and ended up killing our Ocama wetland. But when IUCN came with this project, it really helped us and we stopped activities that caused degradation of the Ocama wetland and it is now restored". *Mr. Paul Egelu, the District Forestry Officer and IUCN BDR project focal point person* "The project fits well into the National and District development plans for improved wetland and tree coverage and these fits into the district priority." He recommended that in case of extension of BDR, next phase, tree planting should be supported for two seasons in order to accommodate replacements to ensure uniformity. While "community must fulfil the project requirements before receiving the CECF funds", he insisted.

Some deviations were also noted in Uganda with regard to beneficiary involvement. The community visited in Agago district seemed to have poor knowledge of the main components of the project, but a good sense of the benefits they had received from the project. This signified a low level of understanding of the project design and components, probably due to inadequate contact time of engagement between IUCN/Ministry of Water and Environment and the community, from an extension services perspective. One would have expected that the objectives and results of the project would be at the beneficiaries' fingertips after 3 years. This implies that in the new Programme, IUCN may need to find a way of increasing contact time with community members i.e. improved extension services and to strengthen capacity building at community level. It was also noted that government staff involved in the project only visited communities when IUCN staff were available. This corroborates the sentiments expressed by some government officers regarding their poor involvement in Uganda. This can be turned around by giving more extension service provision responsibilities to the line ministries in future.

In Uganda, the BDR 2 project fitted very well with the **PDRP Strategic Objective 2** "SO 2: *Rebuilding and empowering communities*" and indirectly to Strategic Object 3 "SO 3: *Revitalization of the economy*" as well as contributing to NEMA's support of the development of Watershed Management Plans[21] based on wetland systems

[21] The National Environment Management Policy for Uganda 2014

and communities in order to empower them to conserve and sustainably manage their ecosystems. The project was also relevant to **IUCN's Policies** and the priorities set out in the **Austrian Development Cooperation's (ADC's) Country Strategy for Uganda**, specifically to support 'Outcome Focus Area 1' of **Uganda's National Development Plan**, namely the "protection and sustainable use of water resources contribute to conflict prevention and reduced vulnerability to climate change".

In the case of Kenya, BDR 2 was fully in tandem the country's **5th Pillar for Ending Drought Emergencies (EDE)**[22] which is an integral part of the **Kenya's Vision 2030**. The Ending Drought Emergencies (EDE) strategy builds on the **National Policy for the Sustainable Development of Northern Kenya** and **other Arid Lands**. This commits the government to end the worst of the suffering caused by drought by 2022, using two main strategies. The first is to strengthen the basic foundations for growth and development, such as security, infrastructure and human capital. The second is to strengthen the institutional and financing framework for drought risk management (DRM). That resonates well with BDR 2. The country encourages development organizations to play active roles in embedding the paradigm shift towards incorporating mechanisms that ensure early responses, scalability of existing services, market-based approaches and stronger complementarity of interventions across separate disciplines (such as drought risk reduction, climate change adaptation and social protection).

3.2 Effectiveness

The BDR 2 project was developed in alignment with the national priorities of ending drought emergencies and building resilience in both Kenya and Uganda. At the local level, the plans were further aligned to local priorities for action through the County/ District Steering Groups (C/DSGs). The project also had a well-articulated project proposal, a well-developed logical framework complete with clear indicators to track performance and an M&E plan. Effectiveness was also strengthened through the use of local institutions, approaches and technologies which the project beneficiaries were already familiar with. That ensured rapid uptake and assimilation. Examples included sand dams, sub-surface dams and shallow wells for water harvesting. By anchoring the bylaw formulation on traditional governance systems and linking the same to the formal government structures the project achieved the twin advantage of grassroots acceptability and official recognition by government authorities. The strategy of partnering with key government departments as well as the relevant regulatory bodies also enhanced project effectiveness.

Further evidence of project effectiveness was evidenced through the functional partnerships and close networking with various stakeholders; interfacing scientific knowledge with indigenous technical know-how. There was also evidence of effective integration of sub-catchment management plans with traditional rangeland management strategies to ensure harmony with government policy instruments.

The project also revamped traditional institutions and based the bylaws on traditional natural resource management practices. This ensured that the bylaws were in in sync with local environmental conservation methods and approaches. And to embed the bylaws and effectively anchor them in County/District legal frameworks, and by extension into national legal provisions, the project drafted and presented ENRM management Bills to the County/District Authorities/Assemblies that were appropriate for the project locations.

Cognizant of religious expectations, the project developed, tested and adopted unique approaches to the CECF that were fully *Sharia-compliant* in Kenya leading to popular uptake and high success rates. The CECF is a unique innovation that has strengthened livelihoods with regard to environmental protection *(economic empowerment; societal cohesion)*. At the time of the final evaluation, there was strong evidence of people feeling increasingly empowered (*women, men, youth and other socially "excluded" groups*). As illustrated below, the CECF gave the youth a real opportunity to grow as they conserved the environment.

[22] Medium Term Plan for Ending Drought Emergencies in Kenya

Table 4: Trading in Goats by the Youth (Source: Youth FGD, Boka Community, Feb 2018)

			Profits Per 5 Goats- KES			Profits Per 5 Goats- USD		
	Buying	Selling	Per 2 Weeks	Monthly	Yearly	Weekly	Monthly	Yearly
Adult Male	5,000	6,500	7,500	75,000	900,000	75	750	9,000
Adult Female	4,000	5,000	5,000	50,000	600,000	50	500	6,000
Yearlings	2,000	3,000	5,000	50,000	600,000	50	500	6,000
Average	3,667	4,833	5,833	58,333	700,000	58	583	7,000

Using the CECF, the youth in Al-Amin Moju engaged in goat trading, buying goats in Boka community and selling them off in Kaningo twice monthly. This they did in groups where each youth had an average of 5 goats being bought or sold at any one time. As the table above demonstrates, the business yields were good every fortnight and the projections for the year equally impressive as shown by Figure 9 below. A careful scrutiny of the numbers shows that, everything else constant, the sale of five goats every two weeks yielded enough profit (KES 5,833) which was enough to buy either a mature male goat or 2-3 yearlings. In summary, the CECF stood out prominently as a key driving force in livelihoods security and environmental conservation support; and moving the youth and women up the value chain thereby empowering them to be active market players. In Uganda, the CECF had also gone to the next level of stimulating the growth of household level business e.g. increasing crop acreage form subsistence to commercialization; bulking of shea and primary processing in the villages to enhance value addition and ushering the communities into the mainstream national economy.

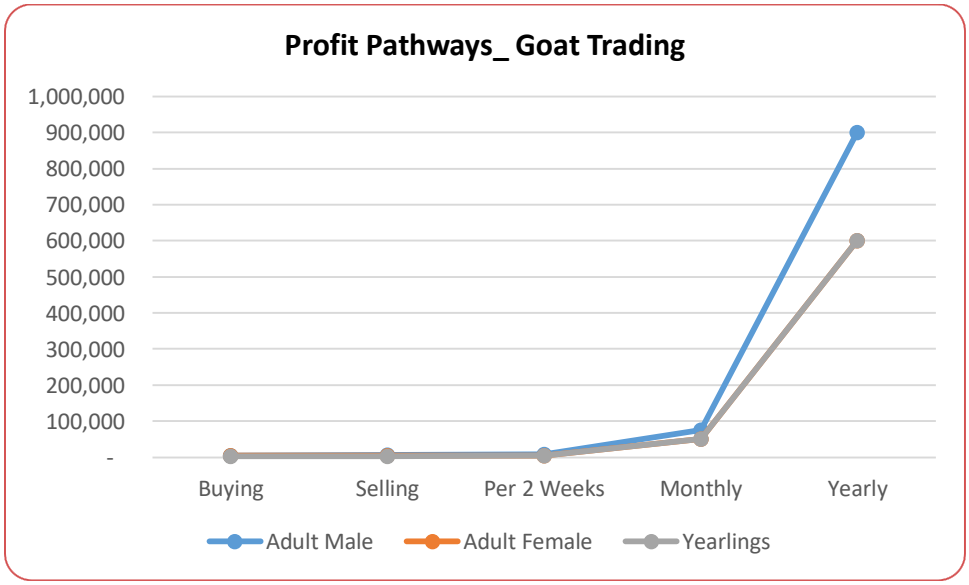

Figure 9: Asset Growth Trends- Goat Selling (Source: Youth FGD, Boka Community; Feb 2018)

Gender equity was a key consideration under CECF, with women beneficiaries comprising at least 33% in Uganda and 47% in Kenya. That had a direct positive impact on project effectiveness from the gender angle. Most women used the CECF resources to invest in businesses e.g. of buying and selling goats and camel milk had lots of success stories to share in terms of how their economic situation had changed for the better[23]. Also by focusing on bio-enterprises such as Aloe Vera farming, the project sought to be creative in identifying alternative livelihood options for its beneficiaries while reducing the people's engagement in destructive environmental practices such as inappropriate charcoal burning.

[23] Diversification of income-producing activities provides greater resilience to drought (*Coppock et al, 2011*)

Effectiveness was also strengthened through community level dialogues around natural resources sharing and management. In particular, using community dialogues, farmers and livestock keepers were brought together to discuss and agree on the allocation of specific areas (*delineation*) for livestock routes. Once mutually agreed, the identified areas (watering corridors *locally known as Malkas*), the areas were clearly marked and protected as stock routes where nobody in the community was allowed to cultivate, fence or make any other developments. The project also supported communities to digitize Malkas on land use maps and, subsequently, the communities outlawed any cutting of trees within the *Malkas*. And because of the respect for *Malkas,* the incidents of conflict over natural resources went down significantly (*see Figure 13 below*). The same effect was achieved through community institutions and dialogues in Uganda.

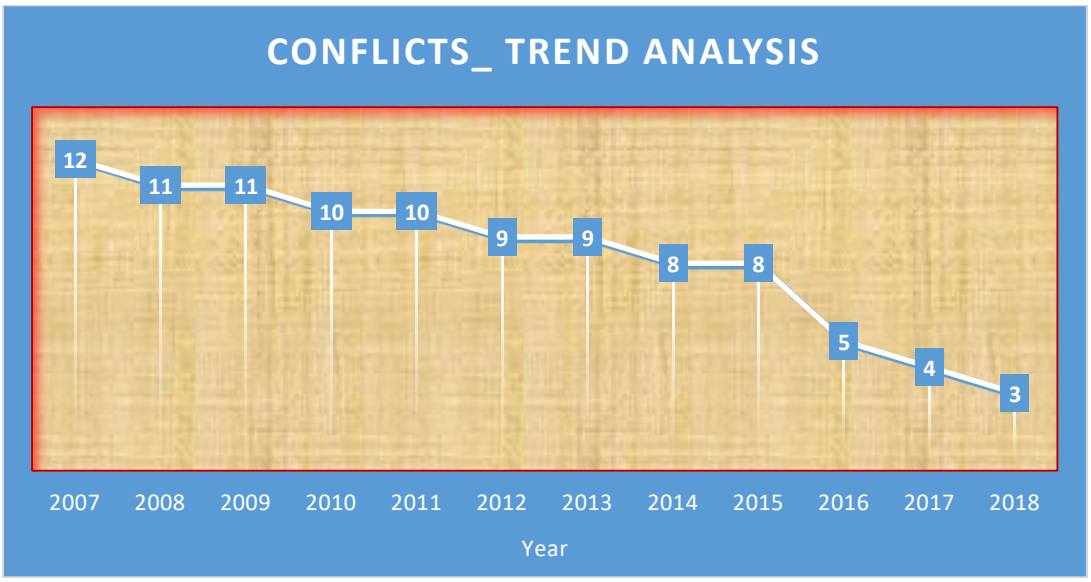

Figure 10: Conflict Trend Analysis (Tula Community FGD, Garissa)

The big positive development resulted from the project activities that increased awareness about resource sharing and the importance of wildlife, delineation of *malkas,* GIS land use maps, development of additional water points and spacing them out to decongest earlier facilities. Land use plans can be a powerful tool for mitigating conflicts because they are developed in a participative by community members at the grassroots. When people are directly involved in their design and they are made to sign it off at the grassroots then they own it fully and will do their best to enforce compliance. Further, land use plans should also be structured in a manner that builds in reciprocal sharing arrangements for limiting resources such as water and pasture during the lean periods. With such aspects duly factored in and popularly agreed at the grassroots, there will be little or no risk of serious conflicts erupting. The CECF can be a critical input to bring warring communities together to develop contingency water facilities and other shared resources at community level.

In addition, by supporting local level governance structures to oversee the use of natural resources, the project also enhanced effectiveness through sharing of responsibilities and influencing behavior change towards improved environmental conservation. And because of this approach, the evaluation team found many communities actively involved in such diverse ventures as protection of wildlife, local vegetation, river banks and forest resources amongst others. All segments of the community (*women, youth and men*) were actively involved in drafting the bylaws. Women, in particular, have been known to be good custodians of the environment and food security[24]. Their direct involvement in BDR2 therefore meant there will be a higher likelihood of achieving the intended project outcomes and impacts over time. And by strengthening customary institutions, the project strengthened existing grassroots capacity to support and enforce the sub-catchment bylaws; and overall natural resource management. Through local trainings and exposure tours, more community members gained additional knowledge

[24] Integrating gender issues in food security, agriculture and rural development (FAO, 2010)

and appreciated the dangers of uncontrolled exploitation of the environment. This empowerment has enabled them to better conserve their environments and reduce human/wildlife conflicts.

Improved access to clean water at community level has had a direct positive impacts on people's health (*from 6 cholera deaths in 2016 in Boka community; there have been no more cholera-related deaths or illness*). Immediately after the cholera outbreak in Boka in 2016, seven boreholes were tested for cholera. Five tested positive while two were negative. Subsequently, all the 5 that tested positive were chlorinated and, as a result, there has been no cholera epidemic again.

Table 5: Story of Change

Story of Change Narrated by Adan Billow, *Al-Amin Moju*
"A lot has changed here in Boka community over the last three years. In 2015, we used to get water from open, unprotected shallow wells. We (women and girls) used to wait long hours on the queues to fetch water and, many times, end up fighting with livestock owners who were also fighting for the same water sources. Many of the unprotected wells used to cave in and end up being contaminated with many water borne diseases. We can never forget one serious cholera epidemic that took the lives of many of people here in Boka in 2016. *Today, 2018, everyone around here is very happy because we have clean water from a combination of protected shallow wells and boreholes. There has been no more outbreak of cholera after the deadly episode of 2016. Some schools have also been supported by the project to harvest and store water hygienically. As a result, it is also now easier for schools to cook for their children compared to the earlier days when schools had to rely on parents fetching water erratically. Hygiene and sanitation lessons have also been taught to the water users for better health.* *In terms of reducing the workload for women and girls, it now takes us less than 15minutes to fetch clean water and there is no more fighting between us and stock owners because the watering points for livestock are clearly designated. Finally, the water tables in our shallow wells have remained consistently high because of the sand dams and sub-surface dams that the project constructed along the seasonal river beds (laghas). These have had the effect of retaining water for longer and constantly recharging our shallow wells. We need more sand dams and sub-surface dams along other sections of the laghas so that the pressure on existing ones can be further spread out".*

In some project sites, effectiveness of the project activities was reduced by organizational level issues such as negative competition for leadership positions and other power dynamics at community level. The evaluation team noted that in some instances some group members felt that they were deliberately left out. All these were observed to be part of the normal group dynamics as organizations grow, storm, norm and then perform. That said, and going forward, the project should invest more in organizational development support for nascent grassroots institutions to enable proper functioning, stability, survivability and sustainability. In particular, it will be critical to provide continuous training on leadership, business skills, organizational development, record keeping and conflict resolution amongst others based on identified skills gaps as well as training and capacity building needs assessments.

In Uganda, effectiveness was weakened by apparently sub-optimal linkages with government ministries and ineffectual technologies for sustainable water use, especially rainwater harvesting technologies for small scale horticulture gardens and drip irrigation. While these are good technologies, Uganda's Ministry of Water officials felt they weren't properly exploited. That was based on key informant interviews with District Water Engineers. This could have been preempted by deepening their involvement in a variety of ways, for instance getting the government water engineers to play more direct roles in the design and signing off/ approval of technical designs; assigning them clear roles in participatory monitoring/ supervision of project implementation and also inviting them to join in periodic project reviews. In some project locations in Uganda, there's resurgence of livestock keeping as a more eco-friendly livelihood system (*20% of the respondents- up from 3% at baseline- favor livestock keeping compared to crops*). The final evaluation established that livestock keeping is more resilient than crops in terms of profitability and their diverse uses e.g. direct income from ploughing and ploughing increased acreages for increased food production.

In the case of beneficiary satisfaction, the communities were generally positive on the approach used by the BDR 2 project i.e. actively involving them directly. This approach made them develop a strong sense of ownership of the project activities. The finalization of digitized GIS maps for Kasha and Bangale Sub-catchments, Kenya and the last two parishes for BDR 2 (*Mutu and Akileng*) in Agago and Amuria districts, Uganda respectively was a key

achievement that aided the identification of areas for implementation of environmental conservation activities. In Uganda too, the partnerships' mechanism was strongly endorsed by senior government officials as the most effective approach for project delivery. The evidence for this includes the recognition of BDR 2/ IUCN's input during the integration of SCMPs into Country Integrated Development Plans (CIDPs) where it was reported that lessons from the BDR 2 project formed the core of the training and capacity building learning session on Integrated Water Resource Management for the catchment management committees of Aswa and Albert Nile catchments in the Upper Nile Water Management Zone in northern Uganda. This is a clear case of the significant role the project played in influencing policy and practice in government; and such materials can be used during up-scaling or institutionalization within government structures. Appropriate training was provided to the catchment committees to enhance their efficiency regard to water and natural resources planning, management and monitoring. In addition, IUCN was elected as a representative of CSOs in these committees. In addition, the project team in Uganda, in collaboration with the Ministry of Water and Environment, conducted trainings on GIS use and applications which enhanced ability to collect and interpret GIS data. This training accomplished the objective of building the capacity of IUCN and ministry staff to collect and interpret GIS data and track the implementation of the community vision plans within their micro-catchments.

The project also partnered with the Directorate of Water Resources Management and routinely participated in joint sector reviews, which ensured the harmonization of plans and interventions at multi-sector level. The project also played a major role in linking the districts within the sub-catchment to mitigate upstream-downstream user conflicts; and also facilitated the Upper Nile Water Management Zone - a government agency in-charge of water resources management within a river basin to hold the first Upper Aswa-Agago Sub Catchment Management Committee Meeting. BDR 2 also succeeded in easing tensions between the local communities and wildlife (*conflict incidence decreased*). Prior to BDR 2, people viewed KWS and wildlife as enemies but through the BDR 2 project, IUCN brought KWS and local communities close together for better coexistence. As a result of increased public awareness of the importance of wildlife plus the need to protect and conserve wildlife, the local communities are now at the frontlines championing the protection of wildlife. In fact, they now play lead roles in the establishment of wildlife sanctuaries (conservancies).

3.3 Efficiency

In terms of efficiency, the project performance was mixed. Whereas the project deployed the right resources at various levels (*technical, financial, human, community structures, government linkages, partnerships and networks*) some outputs were not delivered on time as seen at the time of the final evaluation. In both countries some constructions were still going on (*e.g. shea butter processing facilities in Uganda and sand dams in Kenya*). Under such scenarios, it becomes hard to ascertain the quality of the final outputs as they will be completed outside the project period. The project could have delivered more to time and budget through proper scheduling and sequencing of activities as well as ensuring activity plans were developed, regularly reviewed and adjusted accordingly. Also by adopting the strategy to work through partners and other stakeholders, the project increased its effectiveness as it minimized overhead costs.

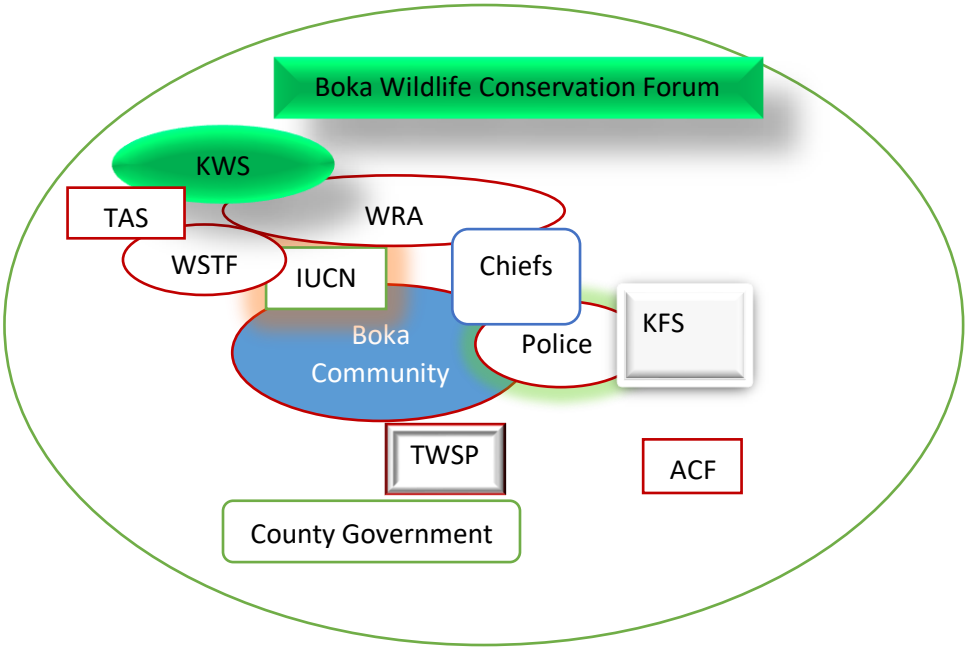

Figure 11: Institutional Mapping- Boka Community, Tana River

The project built alliances with other development actors in the project locations, brought them closer to the community and advocated for sharing of resources as well as in their mobilization. The project indicators were appropriate and well defined with a clear monitoring and evaluation plan. The project activities also touched people's lives and livelihoods directly. As a result, the project enjoyed a warm and cordial relationship with local authorities, beneficiaries, government and other primary stakeholders. In Uganda though, there was a feeling that the project would have done better if it had aligned its M& E with that of the MWE[25] for greater coherence and joint monitoring. Project efficiency was also enhanced through collaboration and partnership with various institutions (*see Figure 9 below*). A number of stakeholders worked with IUCN to deliver various project activities. Some facilitated the beneficiaries in proposal writing, identification of appropriate sites for sand dams, boreholes or sub-surface dams. Others assisted in mobilizing funds or co-financing in activities. Kenya Forest Service was very supportive in Kasha community in establishing tree nurseries. The Kenya Wildlife Service (KWS) facilitated sensitization meetings on human/ wildlife conflict. IUCN was able to leverage on new and established networks, lobby and influence decision makers and share lessons (*e.g. the ASAL Stakeholder Forum*).

To improve efficiency in environmental conservation and regeneration, the project facilitated the WRUA in getting Boka Community 5000 tree seedlings for afforestation as part of the WRUA activities. Similarly, the implementation of the bylaws led to increased regeneration and protection of indigenous vegetation. The project also brought KFS to support the reforestation activities in schools and at community level. Local area residents were also trained on the importance of preserving indigenous vegetation types (*conservation of biodiversity*). IUCN also facilitated strategic linkages with partners such as ACF and TWSP to leverage WASH trainings for BDR beneficiaries.

Several knock-on benefits from re-greening the environment in *Al-Amin Moju* were reported during the evaluation. As a result of the training provided by the project on beekeeping as an alternative livelihood option, bees have started settling in because the environment now has enough forage resources for them. Beekeeping entrepreneurs have also come up and were already making improved beehives to enable more area residents to practice beekeeping efficiently.

[25] As captured during key informant interviews with senior water engineers in Uganda

At the time of the evaluation, 6 improved beehives had been installed and more installations were going on. By then, the farmers had harvested twice from each of the six beehives. On average, the yield from each hive was 10 liters and the market price for honey was KES 3,500/= (USD 35) per 3 liters. That translated to 1,167/= (USD 11.7) per liter or 11,670/= (116.7) per yield of 10 liters for each hive- single harvest.

Three harvests per year per hive would fetch about 35,000/= (USD 350). So, from a set of 10 hives, the yearly income would be 350,000/= (USD 3,500). There's real potential to revolutionize and scale up beekeeping as a supplementary livelihood that's environmentally friendly and also easy to adopt by pastoralist drop-outs and fall-outs as opposed to their engagement in destructive environmental practices such as charcoal burning.

Other ripple effects from the improved access to water (*BDR 2 and partners provided over 10 water tanks, a borehole and shallow wells*) included a police camp that was established within *Boka* community as a result of reliable water supplies. That had a huge positive impact on the security of area residents as the crime rate was reported to have gone down drastically.

Regarding livelihoods diversification, the project beneficiaries in Alolololo (Alebtong district), Ating, Angetta and Anepkide (Otuke district) were supported to bulk, sell and process shea nuts. The communities were able to collect and sell over 230 tons of Shea nuts within their communities and to the Shea processing factory in Lira (Guru Nanak Industries).This development culminated into IUCN piloting the establishment of two Shea butter processing plants (*see Figure 15*) in Arwotngo and Alolololo villages of Otuke and Alebtong districts respectively. That was a very good strategy in support of the communities to carry out value addition to a precious commodity with great market potential locally and globally.

3.4. Project Outcomes and Impact

In many places, there was clear evidence of successful environmental conservation practices, including restoration of vegetation cover. Because of strict adherence to SCMPs and bylaws, there has been a big positive change in people's behaviors, attitudes and practices with regard to their environment, water resources management and even wildlife.

Figure 12: Shea butter processing house being built and recovered wetland in Uganda, Uganda

Through the PRA exercises, it was established that the people's knowledge levels (*supported by the many learning visits, tours and seminars*) had increased, leading to improved awareness and commitment to environmental issues. The fact that local communities were already willingly complying with the rules and guidelines from the WRUAs in most places was a clear pointer that local communities had owned the project activities. That is a very good outcome for environmental conservation. And unlike before, there was clear evidence of reduced environmental degradation (*more trees, shrubs and forbs were still standing despite the biting drought- see Figures 16 above & 17 below*).

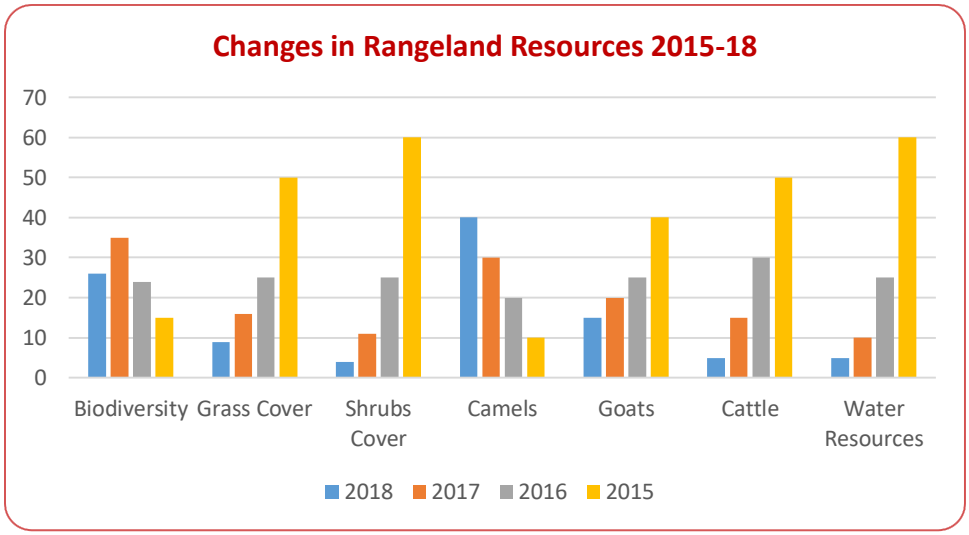

Figure 13: Trends in Rangeland Status and Livestock Composition 2015- 18 (FGD, Kasha; Feb 27th, 2018)

The project also improved people's livelihoods as the capital base was steadily strengthened through improved survival of livestock (*more goats and camels- see PRA findings in Figure 17 above*). As a result of improved management of the environment through efficient land-use planning, there was evidence of improved availability of livestock forage (*browse and herbage especially*) implying higher dry matter intake especially by goats, camels and sheep.

Coupled with improved availability of dry season water, this translated to higher survival rates and greater productive and reproductive efficiencies as opposed to when there are many environmental stresses. Higher survival rates for important livestock directly implies greater preservation of livestock genes and better stabilization of their gene pool amidst adversity, as well as asset protection, an important aspect in resilience to future disasters.

That is very critical for the survival of pastoralist populations because even those who have dropped out/ fallen off tend to find their way back to participate in different livestock value chains. So, even with the current trend towards sedentarisation as opposed to mobile/ nomadic pastoralism, livestock remains the most viable and eco-efficient land-use system for the ASALs.

Asked to further substantiate the above outcome, they explained that their wealth has grown mostly around livestock holding (*goats leading, followed by camels- see Figure 19 below*) and small scale businesses that were supported by the improved management of the environment and natural resources (*forage and water*).The "*big catalyst*"- was the CECF.

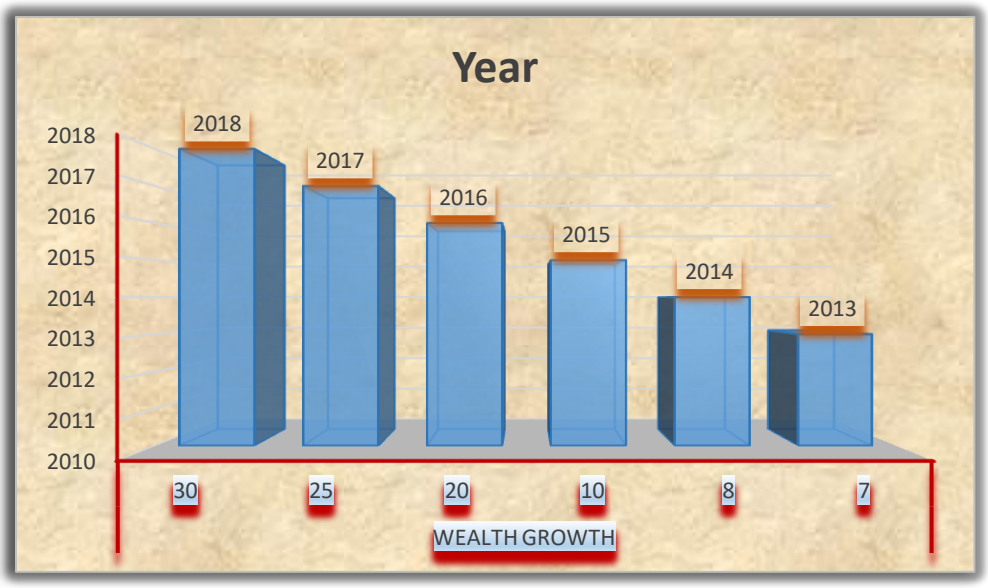

Figure 14: Trend Analysis (Wealth Growth in Kasha Community; FGD male). BDR 2 Effects 2015- 18

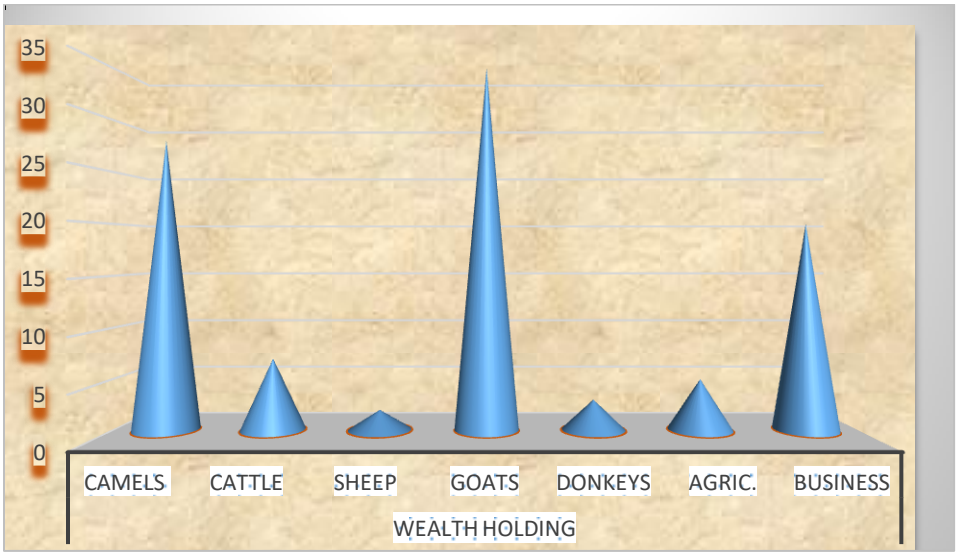

Figure 15: Wealth Holding Attributed to BDR 2

The improved economic empowerment of (*especially of women and youth*) has led to higher dignity of life and greater sense of self-esteem as more people were able to cater for their basic needs without having to depend on others (*obligate dependence*) or literally beg for assistance. By extension, the improved socioeconomic wellbeing had also positively impacted on physical security as there were less incidents of petty crime. Figure 20 (below) depicts progress against different parameters.

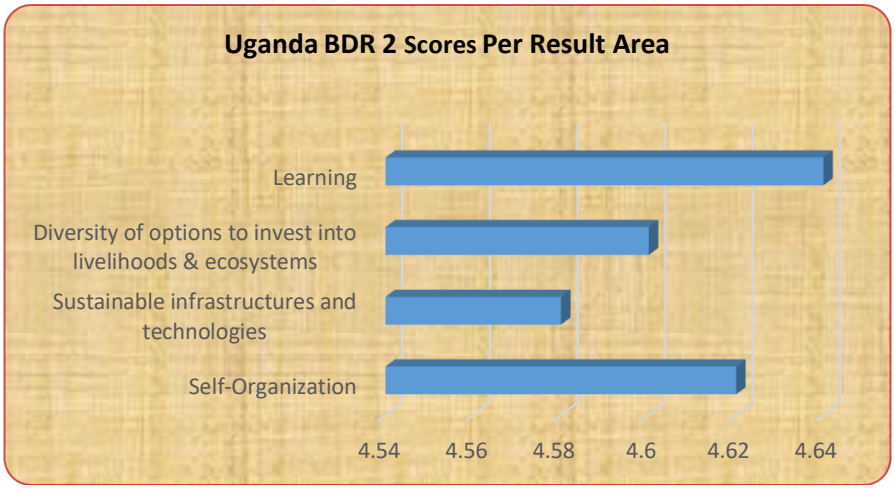

Figure 16: Assessment Scores per Result Area (Out of 5 Maximum)

Livelihoods had also been positively transformed. Women who used to sell *Khat (*also locally known as miraa – *Catha edulis*) for survival had transformed their businesses and were already playing active roles in livestock businesses- *buying and selling goats and milk*. And they made great profits that enabled them to dress their children decently, take them to school and even provide reliable medical care (*see testimonies below*).

Reduced distances to water directly improved women's welfare as they reduced their workload to some extent while at the same time directly improving household hygiene. Some schools and health facilities also benefitted from improved water supply leading to better hygiene and sanitation standards. In addition, the benefitting schools were also placed in a better position to provide meals to their pupils. Over the long term, this is expected to lead to better learning outcomes as school attendance will also increase and retention rates improve[26]. In fact, with improved access to water, hygiene and sanitation (WASH) in school, the girl child in particular benefits most because female hygiene is a very sensitive aspect of life for adolescent girls in water stressed communities.

Table 6: Success Scenarios Using CECF

Success Stories Regarding the Benefits of the Conservation Fund (Women Beneficiaries)
Scenario 1). She received KES 20,000 and bought 10 goats at 2,000 shillings each. The proceeds from the sale helped her to buy books and pens to support her children's education. She was also able to eat three meals a day and buy a few more clothes for herself and children.
Scenario 2). Received KES.20,000. Before receiving this cash, she used to slaughter one goat in a week. But after receiving the conservation fund cash, she was able to slaughter more goats weekly (up to four at times) and make a lot more money. The profit enabled her to change her lifestyle and her children's health also improved; plus she cooks three meals daily nowadays.
Scenario 3): She received KES 20,000 and started a small business of buying mats and reselling them. She used profit to successfully pay fees for one child in secondary school. She has also planted many trees.
Scenario 4): She received KES 20,000 and started a business of buying of goats. Begun with 6 goats and increased to 9. Used the profits to settle other domestic needs. She has also planted some trees.
Scenario 5): Started with 15,000 to start a kiosk business and now her capital has grown to 20,000. Part of the profit used for paying school fees.
Scenario 6): Spreading risks through partnerships. When one receives cash like 20,000 she then sub-divides to others to spread the risk e.g. by giving KES 4,000 each to 5 trusted colleagues each. They come together to do business and usually have a payback plan in place and no loss is expected.

[26] Journal of Environmental and Public Health; Volume 2013 (2013), Article ID 984626 http://dx.doi.org/10.1155/2013/984626

Table 7: Before and After Project Scenarios (Source: Beneficiaries Meeting Final Evaluation Team/IUCN in Atoke District, 2018)

Before the Project	After the Project
Rampant tree cutting	No wanton cutting of trees; planting trees instead
There was no user fees and therefore no sustainability	User fees institutionalized and compliance is high
Frequent breakdown of boreholes- poor O & M	User fees now used in O & M of water facilities
Cultivation in wetland areas was too much	No cultivation in wetlands; part of the bylaws
Sanitation facilities e.g. toilets were lacking	Toilets have been constructed, are used and are clean
Charcoal burning was rampant	No charcoal burning in the area anymore; the charcoal seen in the markets comes from locations not within the BDR 2 project
No spring protection	Springs are now fenced and protected; clean water
Sharing water with livestock	Livestock have their own facilities; no more injuries at watering points; less conflict over watering of livestock; less time spent by women fetching water
No incentive to conserve and restore ecosystem landscape	CECF is a big incentive for conservation
No sensitization about environmental/ecosystem conservation and restoration as well as maintenance of facilities	People are now alive to the environment and implications of environmental degradation and deforestation; government is committed and concerned; Ministry of Water and Environment very active
There was no funding available at community level for activities such as those under BDR 2	There is now funding under CECF although this should be increased to cover more people
Rampant bush burning	Bylaws address bush burning although still a challenge but progress has been made
Lack of awareness and training on how to conserve and restore the environment and improve the ecosystem	Training and capacity building has been carried out
There were no bylaws and people did as they wished	Bylaws are now in place and enforced

3.5 Sustainability

Sustainability hadn't been realized yet as the project was still young. However, a strong basis had been established for the same in the form of: (I) strong customary institutions; (II) broad base of supportive stakeholders; (III) good networking and collaboration with government and regulatory bodies; (IV) land use and resource maps; (V) bylaws; and (VI) skills transfer and capacity building for community members and their institutions especially focusing on promotion, diversification and enhancement of alternative livelihoods via improved market participation.

The close involvement of community members in project activities led to a great sense of ownership which is a strong foundation for sustainability. They played active roles in the identification of project sites; land-use planning; development of resource maps; SCMPs and bylaws. They also participated in the identification of beneficiaries of the CECF.

The close collaboration with other stakeholders such as government and regulatory bodies also contributed to longer term sustainability; optimization of synergy as well as potential for institutionalization of some of the project tools and products within mainstream government departments and institutions.

Table 8: Progress towards Sustainability

Dimension	Some Progress Realized
Stakeholder	Strengthening and building the capacity of various stakeholders in planning mechanisms and approaches to deliver development plans
Economic	Great positive impacts of CECF on household incomes and livelihood security; creating pathways for local communities to participate in market value chains; livelihood diversification is also very important.
Social	Revival and strengthening of customary networks and social groupings for resource mobilization and networking (*traditional safety nets, a backbone to resilience*)
Technical	Active engagement of line ministries e.g. Forestry, Agriculture and Livestock, Water, Wildlife, etc. Essential for technical backstopping and referrals for local communities.
Ecological	Grassroots-driven efforts at environmental conservation, the presence and functioning of WRUAs, resource use committees, environmental stewards and volunteers, etc. are all aimed at sustainable environmental conservation and protection
Institutional	Strengthening customary institutions and formulating bylaws to be anchored at county level and integrated with conventional laws of the land is a big plus towards environmental protection, restoration and conservation.

3.6. Coordination and Coherence

The project coordinated very well with similar initiatives from MWE, WRA, WSTF, GOK and other agencies operating in the related subsectors. That enhanced synergy and optimal utilization of available resources while ensuring the broadest distribution of available resources to benefit more vulnerable communities.

The above also avoided duplication of effort and waste of resources. A good example was provided by instances where WSTF provided funds to WRA to finance specific activities identified in the Sub Catchment Management Plans by the WRUAs and the relevant grassroots committees through business planning. Another example was the provision of Euro 114,365 by the Kenya the government through WSTF.

BDR 2 activities were all anchored in the SCMPs that form part of the County Integrated Development Plans (CIDPs). The project activities were therefore in sync with the government subsector priorities throughout the project life. Since the whole focus is on resilience building, the project will benefit more if its activities are aligned with the Ending Drought Emergence (EDE) framework in both countries.

4. LESSONS LEARNED

Lesson 1 *The IUCN Resilience Matrix is a relevant and powerful tool for replication and up scaling*. Taken together, the pillars comprehensively address the building of resilience to climate disasters.

Lesson 2 *Incentives for community involvement in ecosystem conservation activities are crucial for successful take-off.* This was clearly demonstrated by the very successful use of CECF to drive a highly successful environmental conservation agenda in both countries.

Lesson 3 *With hindsight, BDR 2 should have had a stronger national level engagement in each country.* The realization is occasioned by the fact that most of the policy level issues are anchored at that level. Important policy instruments (*such as country strategies for ending drought emergencies, etc.*) are domiciled in national level institutions.

Lesson 4 *Synergy and coherence between the resilience framework and the project result areas is very important*. That is to say, a project delivers better when all the key elements in its logic layout are addressed in the project design for maximum cumulative impacts.

Lesson 5 *Good water management is a powerful entry point for environmental conservation*. This is a very important lesson for ASALs where communities are basically water stressed. When water resources are well managed, other things easily fall into place, conservation included.

Lesson 6 *Coordination and collaboration are important factors in strengthening the implementation of environmental protection projects and programmes*. Better impacts are delivered by development projects when there's optimal coordination amongst different players as resources are put to best use.

Lesson 7 *Community capacity building and empowerment are critical determinants of project success.* Awareness raising and skills transfer to beneficiaries make a huge difference as they transfer knowledge to the grassroots for long term use even after projects end. That's the software that remains behind.

Lesson 8 *The ADA strategy and donor approaches promote synergy and sustainability.* The strategy of mobilizing other donors to invest in similar sectors over a period of time is noble.

Lesson 9 *There is need to improve or deepen working relationships with line government ministries e.g. Ministry of Water & Environment.* This mainly applies to Uganda (*Kenya has done well linking closely with the Ministry of Water*). The focus for Uganda should be for better collaboration and partnerships; particularly in terms of using the

different ministries for policy influencing and convening capacity for stakeholders at regional and national levels to come together to discuss ecosystem landscape conservation and restoration issues.

Lesson 10 *Extension services at the community level could also be provided by government staff*. This is linked to the many instances where the government officials demonstrated their desire to do more for and with IUCN. Care should only be taken by IUCN to ensure such gestures from public officials are not driven by monetary expectations.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusion

The project registered many positive outcomes and early impacts. The evaluation team gives BDR 2 an overall rating of 82.17% (very good). The project was relevant to the needs of the target groups in both Kenya and Uganda; and the project activities were logically formulated based on IUCN's well-researched resilience framework and previous learning from BDR 1. It was also effectively implemented. At this stage, though, project sustainability hasn't been achieved because of high livelihood vulnerability, nascence of some local institutions and the need to continue skills transfer on many fronts at the grassroots. Further, some grassroots regulatory frameworks (*specifically bylaws in Kenya*) were yet to be anchored in law for proper enforcement and long term sustainability. Finally, IUCN needs to build a larger community of practice at landscape level for the project approaches to be embedded and practiced.

5.2 Recommendations

1. Having generated a good body of evidence at project level, BDR is mature enough to shift to a programme-based approach for purposes of scaling up and focusing more on results (*outcomes and impacts*) as opposed to outputs and activities[27];
2. Scale up CECF to reach more people and landscapes; and diversify livelihoods options. CECF can be designed to stand alone programme of work, enhanced by payment for ecosystem services' models;
3. Strengthen and broaden the targeting of important groups of stakeholders e.g. law enforcers and decision makers at county /district/national levels;
4. Strengthen community engagement through expanded extension service delivery and capacity building; and
5. Strengthen collaboration with key national and regional bodies on matters climate change, resilience building and disaster risk reduction.

6. BUILDING RESILIENCE TO CLIMATE-RELATED DISASTERS PROGRAMME IN THE ASALS OF KENYA AND UGANDA

(*Key Highlights of the Proposed Programme- see Annex VI for details***)**

Programme Framework

The consultative process conducted by the BDR2 final evaluation team with communities and different stakeholders (*including district/county and national government officials and the ADA in Uganda*); and with IUCN project staff in February-March 2018 (*See Annex IV of the Final Evaluation Report*) provided valuable ideas and recommendations for formulating this *Concept Note*.

The proposed BDRP will focus on scaling up of successes and best practices from the BDR project as well as from similar programmes within IUCN as may be appropriate. The programme framework is described below:

[27] This is informed by the fact that the BDR 2 log frame focused more on outputs than higher level results. And indeed some constructions were still going on at the time of the final evaluation.

Overall objective

The overall objective of the BDRP states the direction the programme will take i.e. the changes which will take place in the long term partly as a result of the programme. For a start, this can be stated as follows:

To reduce the impacts of climate related disasters in the Arid and Semi- Arid of Kenya and Uganda

The programme purpose states the expected outcomes, or direct effects of the programme. These are the benefits which the beneficiaries derive from the programme. The purpose states why the programme is needed by the beneficiaries.

The programme Purpose for the BDRP can formulated as:

Resilience of dryland communities to the impacts of climate-related disasters (e.g. droughts, floods, etc.) in the ASALs of Kenya and Uganda is strengthened and integrity of these ecosystems improved over a 7- year period (April 2018-March 2025)

Expected Results

1. Inclusive governance and self-organization over land, water and other assets within the catchment areas improved;

2. Functioning and quality of natural ecosystems/catchments and built infrastructure for sustainable land use and water management in the relevant catchment and county/district areas are rehabilitated, improved and extended;

3. Market development and livelihood diversification strategies that promote resilience are enhanced;

4. Multi-stakeholder and donor engagement; participation; learning and political support for effective resilience building to climate-related disasters at county/district and national level are supported and facilitated.

Under each result area, broad activities, which will be broken down during the stakeholder programme planning workshop, are as follows:

Activities under Result 1

1. Finalize the development of sub-county or county/district land use planning through participatory approaches using GIS mapping and extend these to new locations identified;
2. Develop SCMPs for ASALs through participatory approaches to include range assessments, GIS mapping of degraded and healthy sites and water the different water sources and their distribution in the catchment areas;
3. Finalize the formulation of existing and new customary/local bylaws for well conserved environments and natural resource management and enforce these by embedding the system in district/county land use maps and legal provisions;
4. Carry out capacity building activities for communities and stakeholders on integrated ENRM and CM-DRR through trainings, provision of technical advice and skills transfer across counties and countries;

Activities under Result 2

1. Install well planned and managed climate-proofed infrastructure (strategic boreholes, sub-surface dams, gravitational and lined canal irrigation, etc.) for water supply and flood/drought management;
2. Establish fruits and fodder on farms for riverbank stabilization/protection and encourage beekeeping as an additional source of household income;
3. Restore degraded sites (settlements, water sources, overgrazed areas) and overexploited high value flora species for healthy rangelands;
4. Delineate and brand water corridors to reduce conflicts and open access to water and wetland pastures/fodder/forage reserves especially in dry seasons or periods of drought;

5. Implement disaster Early Warning Systems by establishing river gauging stations for flash floods where relevant and appropriate

Activities under Result 3

1. Carry out a market and value chains analysis of potential bio-enterprise products which identifies priority business opportunities for supporting resilience and diversifying livelihoods;
2. Finalize the testing of *Sharia*-compliant conditions for accessing the CECF; consolidate and expand to benefit more people in relevant geographical locations;
3. Fine-tune and scale up CECF funds disbursement based on different models aimed at strengthening sustainability of the Fund;
4. Support communities in the development of economic opportunities (including value addition through processing) identified in the enterprise assessment.

Activities under Result 4

1. Develop and consolidate the validation, approval and enforcement of enabling county/district ENRM laws and policies;
2. Organize action learning forums and events to generate key lessons for adoption and scaling up to more communities and geographical locations within the programme area;
3. Facilitate stakeholder forums on participatory land use conducted to support resource tenure, access and security for vulnerable community members including women;
4. Strengthen existing multi-stakeholder dialogues between different natural resource users (pastoralists, farmers, industry, water supply) to mitigate conflicts and prevent climate-related hazards such as drought turning into disasters;
5. Strengthen ASAL Stakeholder Forums and County/District Programme Steering Committees to support resilience initiatives under the programme;
6. Involve programme stakeholders in key policy dialogues dealing with climate-related hazards such as drought and flood resilience to communicate results and influence decision-making at catchment, county, national and cross-regional levels;
7. Establish/Support a national stakeholder forum for conservation and restoration of ASAL river catchment ecosystems in Uganda and Kenya and make it a lobby and advocacy forum for pro-ASAL conservation policies and strategies, particularly within government;
8. Using ADA available funds under the new Programme, explore and if possible, establish a multi-donor "basket fund" to be supported by Private Sector; Government; Conservation Trusts/Funds; Donors e.g. DANIDA; SIDA; EU; DFID; USAID, etc., NGOs; International bodies; UN Agencies; Communities and Individuals;
9. Establish and operationalize a simple but effective M+E and Knowledge Management system for the programme in order to better manage data and information, particularly on outcome and impact monitoring;
10. Establish and develop county/district information and documentation centres as repositories and reference focal points on matters pertaining to disaster resilience in river catchment areas of the ASALs in both countries.

The above forms the intervention logic part of the programme. Other components of the Programme Framework are further elaborated in the draft Logical Framework (*annexed separately*)

(*For more details and the full Concept Note, please see Annex VI*)