BORESHA Project

Promoting and Integrating Local Community Knowledge into Disaster Risk Reduction – Experiences from the BORESHA Project

A community sensitization forum on Index Based Insurance, Photo by Abdulaziz Barre-World Vision Kenya

Introduction

Building Opportunities for Resilience in the Horn of Africa (BORESHA) is a 5-year (2018-2022) cross border project implemented by a consortium comprised of the Danish Refugee Council, World Vision International, and CARE International with funding from the European Union Trust Fund for Africa. A fourth partner, Tetra-tech, was also part of the consortium in BORESHA 1, which was implemented in 2018-2020. The BORESHA project has been implemented in 3 phases as follows: Phase 1: 2018 – 2020; Phase 2: 2020 – 2021; and Phase 3: 2021 – 2022 (extended to 2023). BORESHA works with local communities and public authorities to develop transformative processes for enhancing cross-border socio-economic integration. This cross-border socio-economic integration is aimed at supporting resilience building in the fragile and under-developed borderland area, sometimes known as the Mandera Triangle, which is between Kenya, Ethiopia and Somalia.

The specific objective of the project is to promote economic development and greater resilience particularly among vulnerable groups including youth, women, displaced persons and persons with disabilities. This will contribute towards slowing down the cycle of displacement, irregular migration and resultant instability in the three regions of the Mandera triangle by providing the targeted project participants with choices. The interventions are inspired by the understanding that when communities have more options, they become more resilient to the impact of shocks, become more self-reliant, and can develop a vision for change in their own lives.

BORESHA consortium partners are responsible for implementing specific project components, which complement the activities of other partners. World Vision has been leading the Disaster Risk Reduction (DRR) outcome, which is aimed at reducing communities' risk and vulnerability to common disasters. This was delivered through interventions that enhance the capacities of communities to withstand the shocks. World Vision, through the BORESHA project, has been supporting rural communities to become more resilient to the impacts of climate change (such as droughts and floods), as well as other disasters such as diseases and conflicts. Resilience is supported through reducing the vulnerability, of communities, to disasters as well as improving their capacity to cope during and after disasters.

The BORESHA project has delivered interventions such as the creation of asset bases for the extremely vulnerable households to support them to economically sustain their lives. The project has been constructing schools, providing vet drug stores, rehabilitating irrigation canals and shallow wells, restocking livestock such as goats, providing solar-powered water pumps for irrigation and supporting vocational skills training, among other activities. The project is also promoting local knowledge management through community participation, training on DRR, supporting communities to develop their own DRR plans and, providing them with a forum to periodically review their plans and address priorities to respond to, and reduce, the impact of the identified hazards.

Mandera Triangle Context

Mandera triangle is an arid area with recurring droughts that greatly impact the local communities and their livelihoods. This is especially so considering that the locals' main livelihood activity is pastoralism. While the focus on climate change is now starting to increase within the international development sector, the Mandera Triangle has long been experiencing, and has been ravaged, by the effects of climate change with community elders report that 40 years ago, cases of droughts used to be few and far between. The increased frequency of droughts has been a major impediment to the realization of economic growth and prosperity. This is because local communities are caught in a vicious cycle of poverty as the recurring droughts deprive them of the space, opportunity and capacity to recover from previous droughts. The situation has left the local communities dependent on local and international aid agencies who usually intervene with food and NFI emergency distributions. However, while these relief and aid organizations intervene with good intentions of alleviating suffering, this, over the years, has created the unintended outcomes of over-dependence on such charity organizations. Subsequently, communities are usually unprepared when disasters strike due to reliance on interventions from external players. While drought is the major shock in the area, communities also experience other shocks which include conflicts and floods.

Understanding local knowledge

The project has been capitalizing on local knowledge (through integration with knowledge from the DRR approach) to strengthen its impact among communities. BORESHA has also been lobbying for the integration of local knowledge (embodied in DRR plans) in scientific approaches. This integration is seen as taking place through incorporation of DRR approaches in Government Policies related to disaster risk management. The knowledge of local communities can be drawn upon as a resource for community resilience in contexts of environmental risk, vulnerability and uncertainty through informal education processes within local contexts. This can occur when the emergence of such conditions trigger/elicit the community agency to address them.

Disaster risk reduction is the concept and practice of reducing disaster risks through systematic efforts to analyze and reduce the causal factors of disasters. Reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improving preparedness and early warning for adverse events are all examples of disaster risk reduction (United Nation International Strategy for Disaster Reduction – UNISDR, 2015).

Figure 1: Resilience Wheel (Source: CRP LACRO)

Globally, the importance of local knowledge in disaster risk reduction (DRR) is clearly recognized in the Sendai Framework for Disaster Risk Reduction (SFDRR). The framework calls for governments to collaborate with community members, including the indigenous people, to design DRR policies and strategies (UNISDR, 2015). UNISDR acknowledges that local knowledge and practices should be used to "complement scientific knowledge in disaster risk assessment" and to "develop policies, strategies and plans" for DRR at regional and national levels (UNISDR, 2015:15). In line with this, the project conducted Community Owned Vulnerability and Capacity Assessment training (COVACA[1]), where communities shared local knowledge used for coping and mitigating disasters. For example, they reported that when livestock are reluctant to leave waterpoints or when ants start storing food, it is a sign of a bad year ahead. When integrated with government scientific early warning indicators from for example, National Drought Management Authority (NDMA) in Kenya, this gives two types of knowledge, which complement each other. The project aims at strengthening the integration and effective utilization of these two types of knowledge.

In Kenya, there is a National Policy for Disaster Management which is still in draft form (not yet put into law) aimed at establishing and strengthening disaster management institutions, partnerships, networking and mainstreaming disaster risk reduction in the development process. This is expected to further strengthen the resilience of vulnerable groups to cope with potential disasters. The existence of the Ministry of State for Special Programs, which is dedicated to disasters and also has a budgetary allocation and various consultative forums, provides an effective platform for coordination of all disaster management activities. In Somalia, a Somali Disaster Management Agency (SoDMA), operating at national level, oversees all activities that aim to save lives and strengthen community livelihood systems to withstand shocks and manage disasters and improve access to basic services, while emphasizing protection of vulnerable groups, including seeking durable solutions for IDPs in Somalia. The agency formulates and implements policies that seek to empower vulnerable communities to withstand and build resistance to natural and man-made shocks, rebuild sustainable livelihoods, address the root causes of vulnerability,

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[1] see section on 'Approaches and methodologies for mainstreaming local knowledge' for details on the COVACA approach

solve the cyclical displacement of populations and invest in government capacity for DRM, including early warning systems.

Definition of local or indigenous Knowledge

While no precise definition exists, numerous attempts have been made to define the concept of local and indigenous knowledge. To synthesize definitions found in relevant literature, local and indigenous knowledge can be understood as 'a body of different types of knowledge and practices of societies accumulated through continuous interaction with their natural surroundings' (Brokensha et al., 1980)

Types of local knowledge

Local knowledge systems incorporate what people know (knowledge types); what people do (practices); and what people believe in (beliefs, values, and worldviews). They are interrelated and influence one another constantly, contributing towards disaster preparedness (Dekens, 2007).

In the BORESHA context, local knowledge can be identified from the following:

- Perception and interpretation of drought disasters such as those based on observations of the sky, trees and wind;
- Livelihood sustainability and coping practices (e.g., livelihood diversification before or aftershocks);
- Prevention, mitigation and survival strategies (e.g., temporary evacuation to higher ground, construction of houses using local materials, short and long-term migration); and
- Individual and collective recovery mechanisms based on social, cultural and belief systems (e.g., rituals and ceremonies).

Local knowledge enables interventions to respond with context specific approaches, which are known and accepted locally. This is more effective in delivering impact, but also promotes sustainability because community members are always present in their communities with the know-how around the local knowledge. This in turn facilitates adaptation of approaches as needed, by communities themselves, because they are working with approaches with which they are familiar.

Benefits of mainstreaming local knowledge

The UNISDR (Edited by Shaw, Uy & Baumwoll, 2008) identifies the following long-term benefits of mainstreaming local knowledge in disaster risk reduction:

- Transferring various local strategies against natural hazards to other communities with similar situations.

- Facilitating understanding of local context by using local knowledge in project implementation.
- Offering a successful model for DRR education from the transmission of local knowledge through the generations.
- Encouraging participation and empowerment of the affected community to take the leading role in disaster risk reduction activities.

Approaches and methodologies used for mainstreaming local knowledge

Disaster risk reduction is the concept and practice of reducing disaster risks through systematic efforts to analyze and reduce the causal factors of disasters. Reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and the environment, and improving preparedness and early warning for adverse events are all examples of disaster risk reduction (UNISDR).

The knowledge of local communities on disaster risk reduction cannot be ignored and can be drawn upon as a resource for community resilience in contexts of environmental risk, vulnerability and uncertainty. This can be done through informal processes within local contexts, for example the potential threat of a disaster can trigger/elicit the community to act to address the threat.

Resilience begins to denote a series of principles for development practice. The implications of thinking through what these principles mean, when applied to development programming, led World Vision to identify and test a number of methods to operationalize resilience thinking. These include:

- Participatory assessment of complexity and root causes
- Broad stakeholder engagement and capacity building
- Cross-sectoral design and implementation
- Flexible programme design and implementation
- Scenario planning

'Resilience thinking' therefore became a process of changing mindsets and promoting preparedness for shocks. World Vision, working in 22 locations within Mandera County in Kenya, and 7 locations in Doolow District in Somalia, selected and trained community representatives as community facilitators for the Community Owned Vulnerability and Capacity Assessment (COVACA) approach, which is the first step to take to support reduction of community vulnerability and support sustainable livelihoods. COVACA aims at developing the capacity of communities to be able to identify possible threats or potential disasters through their own assessments and information gathering. Following this, communities are supported to identify their strengths and opportunities for responding to identified threats, and subsequently to develop their own realistic Disaster Risk Reduction (DRR) action plans. The COVACA tool is presented in the annex and Figure 2 presents the COVACA cycle.
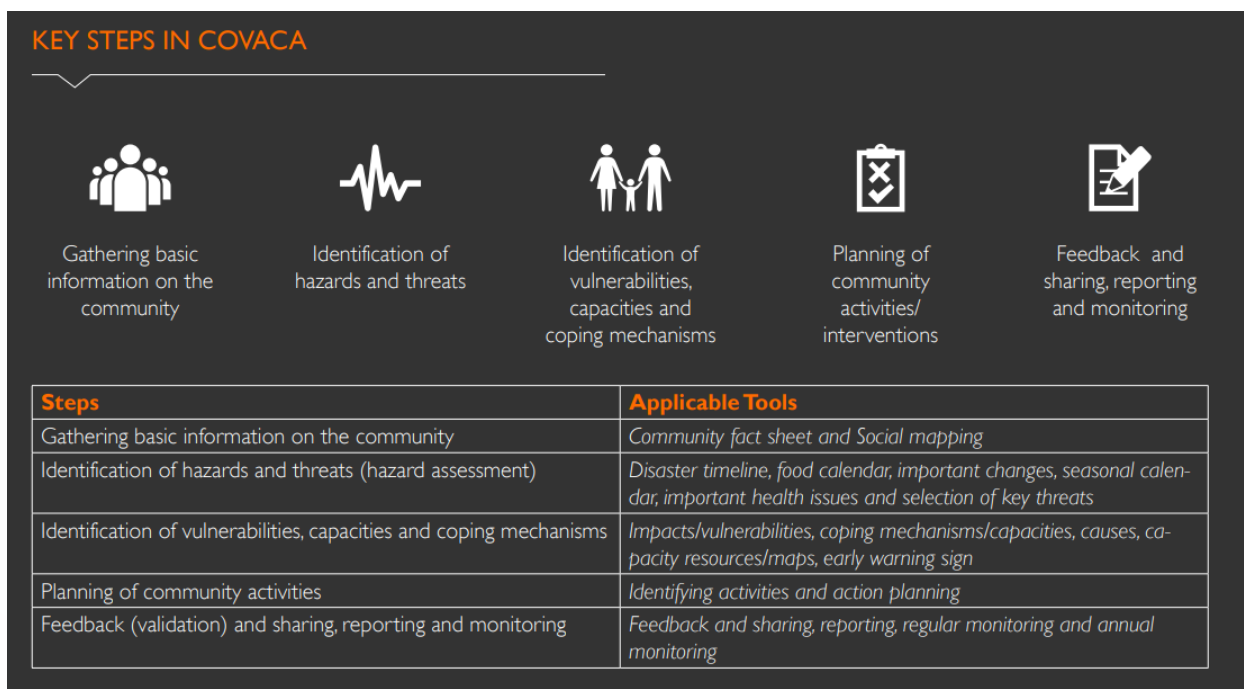
KEY STEPS IN COVACA

| Gathering basic information on the community | Identification of hazards and threats | Identification of vulnerabilities, capacities and coping mechanisms | Planning of community activities/ interventions | Feedback and sharing, reporting and monitoring |

Steps	Applicable Tools
Gathering basic information on the community	Community fact sheet and Social mapping
Identification of hazards and threats (hazard assessment)	Disaster timeline, food calendar, important changes, seasonal calendar, important health issues and selection of key threats
Identification of vulnerabilities, capacities and coping mechanisms	Impacts/vulnerabilities, coping mechanisms/capacities, causes, capacity resources/maps, early warning sign
Planning of community activities	Identifying activities and action planning
Feedback (validation) and sharing, reporting and monitoring	Feedback and sharing, reporting, regular monitoring and annual monitoring

Figure 2: COVACA Cycle

COVACA requires that the DRR committee members are selected from the community by the community members themselves using the criteria outlined in the DRR guidelines[2]. The selection criteria are defined by the community through a process facilitated by World Vision. The selection criteria include:

o   Females must be well represented in the committee (40%)
o   One should be committed and dedicated (and should be able to work on a voluntary basis)
o   A member should be a disciplined and highly respected person in the community
o   A member should have the art of public speaking
o   A member should have community mobilization skills.
o   A member should be a permanent resident of the location he/she represents.
o   Previous positive participation (or experience) in DRR activities is an advantage
o   COVACA TOTs are permanent members of the committee in each location.
o   The committee should have all the clans represented
o   The different community groups (youth, religious leaders, elders, disabled, sub-clan representatives, women) should be represented to get their voices since disasters affect each category differently.

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[2] ENGLISH-Guidelines-National-Platform-DRR.qxp (unisdr.org)

The selected community representatives were trained as community facilitators for the COVACA approach. The COVACA training tool is based on, and utilizes, local knowledge as it derives its data from community experiences and traditional practices in responding to disasters. The DRR action plans from the COVACA process are therefore a compilation of actions informed by local knowledge, therefore going forward, the DRR action plans can be conceptualized as local knowledge.

Following the training of community facilitators, World Vision embarked on a community sensitization exercise on DRR objectives and benefits in the target locations in Kenya and Somalia. During the community sensitization exercise, the project team used several strategies to train DRR Committees to understand and internalize the COVACA approach so that they are able to articulate their local knowledge and effectively put it into practice.

The strategies that were used to help communities to internalize COVACA included:

- Use of local languages, which are understood by communities
- Provision of simple but comprehensive explanations (with examples) on what DRR and COVACA entail, as well as why they are important
- Question and answer sessions to allow communities to reflect back on the training
- Gathering, recording and analysing (through discussions) of participants' feedback
- Working with communities (analyzing communities' daily schedules and routine activities) to find appropriate times to schedule meetings with them.
- Use of visual tools such as community resource mapping, Venn diagrams and vision mapping exercises to support the objectives of the COVACA approach.

Advantages of the strategies used

The strategies have been helpful over the years as they generate optimum information from the community. In addition, the strategies are increasingly being contextually adapted with partners revising and improving on them with time. They, therefore, remain effective. There have also been customized tools such as pictorial, illustrative and practical methodology which have proved appropriate as opposed to written literature or academic scripts for the vulnerable community groups who cannot read. In addition, communities are able to come up with their own community-based action plans (known as DRR Action Plans) for interventions aimed as responding to disasters. Communities are also empowered with resource mobilisation skills that help them to mobilise resources for implementing their action plans. The methodologies used also support the development of collaboration skills within communities so that communities are able to engage with other stakeholders like development agencies and the Government who can come in to provide resources for delivering the community DRR action plans.

However, as development agencies tend to have presence linked to the life of a project in any particular area, i.e. they do not remain in a community indefinitely, there is need for ensuring that communities are able to access resources for delivering their DRR action plans in the future, post the project. BORESHA has therefore been supporting communities at two levels. First, the project has been supporting the integration of local knowledge into the community level DRR action plans, which supports sustainability of resilience interventions as communities can adapt their response plans based on their knowledge of their context, and the resources available to them. Second, the project has been supporting the integration of the community level DRR action plans into the regional and national level plans of different Government Departments. This will support access to some resources from the different Government Departments (e.g. expertise, capacity building, in-kind support) for delivering the community DRR action plans. There is therefore need for further strengthening this integration and collaboration with Government Departments.

Integration of local knowledge into mainstream systems

World Vision, through working with the communities around Mandera Triangle, have ensured that the local knowledge is well integrated in designing and implementation of action plans. This, for a while, brought reduced climate related losses through widespread DRR measures, and good utilization of natural, financial and human resources through enhanced effectiveness and sustainability. For some communities, however, some of these gains have been eroded by the current drought.

Integration has been done through various steps. Firstly, community members meet to go through the COVACA process. Diverse groups within the community are represented at the meetings. These include women, men, children, people with disabilities, opinion and religious leaders, among others. The groups share their own experiences of the impact of different disasters on their lives, they bring knowledge of coping mechanisms relevant and appropriate to them, and finally they use this knowledge and experience to contribute to the development of plans that enable them to better survive disasters. These meetings consolidate diverse types of local knowledge from different sources into the one DRR plan. Thus the first step is the integration of individually held knowledge into community level plans. Through this process, there is also the development of knowledge within the community as communities become empowered to design interventions that enable them to survive disasters. This knowledge includes, planning, negotiating, and resource mobilization, among others, are critical outcomes for supporting sustainability of interventions post the life of the project.

Next, the DRR action plans are integrated into structured Government plans. The BORESHA project coordinates and arranges meetings between communities and different Government Departments. Communities get the opportunity to share their experiences and their developed DRR action plans. This provides an opportunity for Government Departments to get an

appreciation of the different strategies (based on the community DRR action plans) that are available for effective planning and resourcing of disaster risk reduction actions. It helps them to appreciate the value of local knowledge for example in forecasting a potential drought year. The use of local knowledge has potential to reduce the financial resources that they need to invest in responding to disasters.

DRR Linkages and forums

The project used innovative ways of sharing information on both forums and social platforms including:

- Stakeholder meetings at village and District/Sub-County levels, which involved physical meetings between the DRR committees and other actors to enable stakeholders to share their action plans and compare sector plans for adoption by different sectors
- Use of SMS platform for communication between DRR committees in different countries, especially during the pandemic
- Effective communication – Partners facilitated dialogue between DRR committees from Kenya, Somalia and Ethiopia to support information sharing. Megaphones were distributed to facilitate community sensitization on DRR
- A cross boarder meeting was conducted for information sharing along Rhamu between the Kenya and Ethiopia boarder. This resulted in improved cross-border activities and reduced tensions among the border communities, supported peaceful coexistence and fostered market growth among the traders.

Highlight of key Achievements/Results

The DRR action plans were shared with other actors such as the National Drought Management Authority (NDMA), County Government of Mandera, Local Authority in Doolow, and other NGOs that are delivering community-led advocacy. The objective of this activity was to facilitate the integration of the community DRR action plans into Government plans.

The achievements outlined below have been achieved as a result of the local knowledge that has been brought to bear by the community as they are able to understand the importance of mobilizing for resources in order to mitigate and build community resilience.

- 300 (177 male and 123 female) DRR committee members from 29 DRR committees were trained on COVACA, DRR and Early Warning Signs. They are now able to provide timely information before common disasters occur. According to the BORESHA I Endline Evaluation Report, there is increased knowledge among communities on early warning signs, where 70% of the respondents indicated being knowledgeable on EWS for floods, 87% were knowledgeable on EWS for drought, while 70% were knowledgeable on EWS

- for livestock diseases. Overall, awareness on EWS for common shocks was found to be high amongst the project participants.
- The DRR action plans were shared with other actors through community led advocacy, which was conducted for the integration of the plans into County Government's CIDP for 2018 – 2022 (County Integrated Development Plan 2018 – 2022).
- 4 Underground water tanks were constructed and fenced. This improved access to water for 8000 households (including nomadic pastoral HHs utilizing the tank during the dry spell).
- 2 boreholes were rehabilitated with a piping system (1,750M long), there was construction of a Water Kiosk, and there was installation of a steel tank that enhances access to water as the elevated steel tank provides enough pressure to deliver water to the water booths (kiosk). Before the intervention, women were fetching water from the livestock troughs
- 7 shallow wells were rehabilitated, and these have improved farmers' daily income and livelihoods. This is because some farmers are using the water from the shallow wells to irrigate their crops which they then sell and get an income. In addition, they sometimes sell some of the water. The do not sell the water its only for irrigation purposes.
- One hay store was constructed, and this has improved fodder storage and quality during the drought season. Previously fodder would be stored in acacia trees, which affected the physical and nutritional quality of the fodder due to exposure to weather elements such as the sun.
- 16 school infrastructures were constructed and/or rehabilitated through cash for work (CfW). According to feedback shared during community focus group discussions (FGDs), this has resulted in improved school enrolment and created a conducive environment for the pupils to learn.
- Provision of 14 (24000L) plastic water tanks to 14[3] schools (one for each school) and construction of a concrete tank, which has enhanced water accessibility for learning institutions.
- Rehabilitation of 4 underground water tanks, which improved water storage at the local level.
- Installation of Seven (7) Solar Pumps for irrigation in Doolow, Somalia, for crop production.
- Construction of two market sheds in two IDP camps in Doolow, Somalia, to promote trade of fruits and vegetables targeting youths who are engaged in agribusiness.
- Construction of two animal drug stores, with handling facilities, in Wareyle and Una villages of Doolow, Somalia.

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[3] Malkamari Secondary School, Ameyi Primary School, Umur Primary School, Khotkhot Primary School, Kiliweheri Secondary School, Alfowzan Primary School, Alfurqan Primary School, Banissa Secondary School, Khadija Primary School, Malkamaruqa Primary School, Kubi Primary School, Burjhon Primary School, Shirshir School and Ashabito School

DRR Implemented action plans

The following plans were implemented in Kenya by the Mandera County Government and other partners. It is important to note that implementing an activity depends on prioritisation by the community and then subsequently on available resources. Table 1 presents the number of plans that were prioritised by the community and then implemented.

Table 1: Action plans prioritised and implemented

Country	Action Plans	Prioritized Activities	Funded and Implemented Activities	By who	Knowledge gained/developed	Opportunites
Somalia	26 developed for 6 villages	15	10	BORESHA	• **Community ownership** – communities identified risks, coping mechanisms and subsequently developed action plans, which they further prioritised for implementation. For some activities, the project provided resources for cash for work activities by the community. All these promoted community ownership. • **Sustainable infrastructure development** – communities developed plans for the management and maintenance of infrastructure as well as plans for resource mobilisation for repairs and maintenance e.g. community contributions for managing solar pumps. • **Community empowerment** – instead of waiting on external interventions, communities were able to develop action plans to address the risks that they face	Since communities have documented action plans, there is opportunity for them to re-prioritise their activities, as relevant, and implement when resources are available. The fact that communities own the action plans means that even when the project ends, communities can still mobilise and source for resources to implement their plans.
Kenya	7 plans for 7 wards (which have 22 DRR locations)	310	116 **3**	BORESHA Other NGO's and County Government	• Resource mobilization by communities • Sustainability of the implemented project	New county governement manifesto included complete devolution of funds to lower level. Some of these funds could be made available to resource DRR action plans.

Table 2 shows the interventions that World Vision delivered based on plans developed through COVACA, and where they were implemented.

Table 2: World Vision interventions based on knowledge gathered through COVACA

NO	Intervention	Country - Kenya
1	Construction and fencing of underground water tanks	Doday, Quracmathow, Kukub and Khotkhot
2	Desilting and lining of earth pan and fencing	Malkamari
3	Construction of hay store	Neboi
4	Rehabilitation of 2 boreholes and construction of a piping system of 1,750M to the centre of villages	Shirshir and Hullow
5	Construction of elevated steel tank	Hullow
6	Provision of 14 (24000L) plastic water tanks and construction of concrete tank bases	Mandera north, Banissa and Mandera east
7	Installation of greenhouse for 2 farmer groups to support livelihood diversification	Rhamu and Banissa
8	Rehabilitation of 4 underground water tanks	Mandera North and Banissa
9	Provision of drip irrigation for youth groups	Mandera East, Mandera North and Banissa
NO	**Intervention**	**Country – Somalia**
10	Promoting latrine construction and use in rural villages practicing open defecation - 52 latrines constructed	Una, Wareyle, Barabarai, Kortun, Hamare, Dhaygab, Doolow
11	Rehabilitation of 3 shallow water wells	Una, Doolow
12	Canal rehabilitation of 1200m	Barabarai, Wareyle, Una
13	Construction of 3 school centers	Wareyle, Kortun, Hamare
14	Rehabilitation of 2 animal drug stores	Una, Warele
15	Animal re-stocking targeting 490HHs where each household received 5 female goats	Una, Wareyle, Barabarai, Kortun, Hamare, Dhaygab, Doolow, Lanbule, and Qurdhubay.
16	Solar Pump installation in seven sites in Doolow	Una, Wareyle, Barabaray, Kurtun, Dhaygab and Hamare
17	Construction of two market sheds	Two IDP centers in Doolow

Promoting and Integrating Local Community Knowledge into Disaster Risk Reduction: Success Stories

1. Improving access to water

To provide local solutions to scarce water resources due to recurrent drought as a result of climate change, the community of Shangalla in Mandera, Kenya prioritized an underground rainwater harvesting tank of 800 cubic litres. The activity was prioritized after the COVACA process hence was a well-thought-out idea in view of the prevailing water problems in the area. The idea received an overwhelming vote during the prioritization. The DRR chairperson led his team to identify a suitable site based on the following requirements based on geographical features:

1. A site with a good catchment and vegetation (vegetation filters run-off water and improves quality of water)
2. A site where water can follow via gravity to maximize on rainwater harvesting (visible signs of water channels from previous water flows to be checked out)
3. A site that has good soil structure (away from gulleys), which ensures that the facility (tank) does not break or crack
4. A site that is accessible to all persons including people with disabilities

As the government has similar objectives of mitigating droughts in their County Integrated Development Plans (CIDP), Ministry approval of design and site selection was needed prior to any work commencing (the design and bills of quantities originate from the County Works Engineer). The DRR committee identified able-bodied persons to start excavations, while persons with disabilities were asked to nominate able-bodied persons from the community. This was in recognition of the fact that the tank would benefit the whole community.

The tank construction was finalized in 2 months. The community members that worked on it were paid US$10 for a day's work. The water facility was fenced to ward off wild animals and other livestock. To support sustainability of the water tank, the community identified 13 community members who received training on water facility management. These trained community members, manage the water facility through routine maintenance using the revenue collected from households that draw water from the facility. It is worth noting that a third of the Executive members of the committee are women who hold leadership positions within the committee. Households pay 20 Kenya Shillings per 20-liter jerry can of water. The revenue collected from households is also used to pay for water trucking during dry spells. This means that households do not have to buy water from truckloads in the period leading to the next rains. Water availability

Figure 3: World Vision constructed underground rainwater harvesting tank:
Photo courtesy of Abdulaziz -2021

has been enhanced throughout the year because the tank can hold more water hence provides water for a longer period of time, which is a huge relief to the community. While this activity was delivered as a cash for work intervention, it is recommended that, going forward, this community engagement becomes the community's own contribution to the cost of the intervention. This approach will mitigate the risk of potentially creating dependency within communities, which would erode the resilience capacities of communities

Figure 3: World Vision constructed underground rainwater harvesting tank: Photo courtesy of Abdulaziz - 2022

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2. Conflict sensitivity

In late June 2021, there were inter-clan clashes in villages mostly in the Doolow area surrounding BORESHA target villages in Somalia. The clashes claimed the lives of 32 people from the warring clans; caused injuries; resulted in the destruction of assets; and displaced more than 3000 households. The cause of the clashes was a dispute over ownership of agricultural farming land along river Jubba. The BORESHA-led DRR committee members rapidly initiated peace building activities in the area through discussions and engagement with both Gedweyne and Doolow local administration. The dialogue contributed to the:

- prevention of more losses of lives and other assets
- analysis of root causes of the conflict resulting in solutions coming from the two clans
- establishment of a future prevention base in case of further violence.
- peaceful resolution of the conflict using effective arbitration approaches. For example, the traditional custom laws of the Somalis (called Xeer) were employed in this conflict situation.

Yusuf Dirir is the leader of Gedweyne area. He attended a meeting that the BORESHA project team organized to respond to, and mobilize communities regarding, violence activities that had emerged on the other side of the Jubba River. In his address, Mr Yusuf encouraged the DRR committees to always work to provide solutions instead of encouraging conflicts.

"We should play our role as elders and community leaders to resolve the conflicts and not infuriate, by doing whatever we can through local solutions", said Yusuf.

Figure 4: Yusuf Dirir (standing) - Leader from Gedweyne area at conflict resolution meeting

The DRR committee resolved the conflict by using awareness and peace negotiations between the two clans, engaging the elders and religious leaders from both clans, as well as engaging the Local Authority in these negotiations. Meetings provided opportunities for the two clans to talk. The communities used the Somali Customary law (**Xeer Soomaali)** and Islamic Sharia (Quran & Hadith) to guide these meetings around conflict resolution. They also referenced and made use of best practice that had been used for solving similar cases from before. For example, the committee members consulted the elderly members of the community on conflict resolution approaches that had been effectively applied in the past. As a result, the community reached a peaceful agreement. This case demonstrates how the concept/structure of the DRR committees, which while having been introduced into the communities, enabled community leaders to draw on their experiences from the past to guide their engagement towards a peaceful resolution to the conflict in their area.

The DRR concept is also being used to resolve marital conflict as demonstrated by the feedback from a Neboi, Kenya, DRR committee member below.

Figure 5: Lulu, committee member from Neboi DRR committee sharing her experience of using DRR to resolve marital conflict.

Lulu Hassan, DRR Committee member for Neboi sharing her experience on conflict resolution, said,

''It always took me a lot of time to reconcile married couples who had problems in their marriages. The COVACA concept has helped me to quickly find key issues that cause conflicts in marriages. Since I received DRR training from BORESHA the conflicts have reduced in my area through reconciliation efforts learnt from the COVACA.''

The diversity of committee members in her DRR committee meant that the different people combined, based on their experiences, came up with solutions to help guide her interactions with couples.

3. Community coping mechanism

Disaster risk reduction was established from the need to protect communities from hazards and minimizing their vulnerability to the risks of disaster. Preparedness, early warning and mitigation were critical for supporting the reduction of the impact of drought.

Involving the Tarama community, in Kenya, in the preparation of the vulnerability assessment improved the effectiveness of the process, while also ensuring that assessments were relevant to those who are most at risk. This is because different members of the community shared their experiences of the impact of disasters and how they cope. These experiences resulted in plans that collectively addressed the needs of the different community members. The community made action plans for drought mitigation mechanisms, which they prioritized. They then received support, from WV, with actioning their prioritized plans. Meaningful community involvement helps improve awareness about the risks posed by certain hazards and motivates community members and organizations to take steps to become more prepared. The community made actions and priorities including drought mitigation mechanisms where WV supported with pumps for irrigation, seeds and others to reduce further vulnerability.

The community had regular discussions on strengthening community based early warning and early action systems through the use of local resources and capacities to better prepare for, and respond, to disasters and adopt measures to reduce their vulnerability and develop hazard mitigation plans. The discussions led to cross-border community meetings where information on DRR was shared between Ethiopian, Somalia and Kenyan communities. This enhanced community working relationships, cohesion and disaster mitigation. What has been observed is that because

of these cross-border meetings, there is significantly less political tension in the areas covered. This has allowed the cross-border movement of people and livestock as a coping mechanism during the drought and subsequently, peaceful co-existence. In the annex are minutes from one such cross-border meeting.

Figure 6: Cross border meeting between DRR committees in Ethiopia and Somalia, including WV Somalia and DRC Ethiopia, (Ndolo Somalia)

There are several types of disasters that the communities are faced with. These include natural disasters such as floods, droughts and diseases as well as disasters like conflicts, and environmental degradation. To respond to this, communities have different coping mechanisms including, but not limited to:

    a. Use of water facilities to generate income (e.g. selling water) during non-drought seasons, and then utilizing the income generated to buy water during drought emergency periods

    b. Lobbying for drought intervention projects by sharing community action plans with elected leadership as well as during linkage forums[4]

    c. Livelihood diversification where new sources of livelihood such as small-scale businesses (e.g. bee keeping, agri-business) are exploited

    d. Migration to other sub-counties or countries

    e. Relying on relatives for support during extreme conditions

    f. Fodder growing and storage for use during the lean period

    g. Reducing livestock numbers to manageable levels by selling them on the market when livestock body condition is still good or fair.

    h. Engaging in Government initiated livestock off-take programs[5] to sustain households during emergencies

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[4] Linkage forums are where Government meets with DRR committees to discuss development issues. The DRR committees take this opportunity to lobby for their own plans
[5] The Government buys livestock off farmers for the purpose of enabling them to weather emergencies

4. Risk Reduction

Disaster preparedness takes an approach of inclusiveness as such it is also implemented in schools so that children are not left behind. Children play a vital role in disseminating information to their families and communities. The project targeted the rural communities seeking to empower women, men and children in sustainable and collective management of risk reduction. Given the significant role of women and children in the community, strengthening of the education system was prioritized. For example, 3 classrooms were constructed in 3 schools and one school was provided with 30 desks while the other two were provided with desks by the local community.

Figure 7: Students in class in Barabaray village, photo Taken by Abdirahman (DRR-officer)

Women and children were supported with learning skills. This has improved literacy levels in the rural target community, it has improved business opportunities, and it has increased women's participation in decision making processes during community meetings. Enrolment in schools also initially increased, however, this later declined as a result of the recurrent drought. At village level, the community members are able to read and write as teachers provide adult learning sessions in a conducive education environment. Literacy is an enabling driver for community members and/or their children to be able to read early warning messages that come via their mobile phones (SMS). In addition to reading messages for their parents, children also share DRR messaging from school with their parents.

Ali Shide is one of the project participants who has benefitted from the BORESHA project interventions in Wareyle village 12km away from Doolow District. Ali keeps animals and grows crops. In BORESHA Phase II, Ali benefited from the rehabilitation of a concrete irrigation canal as his farm was one of those situated along the length of the irrigation system. Ali was able to access water from the system to irrigate his farm.

Figure 8: Ali Shide Ali - Wareyle village, Doolow

Ali has also benefited from animal restocking, installation of engine pumps and distribution of seeds. These activities comprise the intervention package for supporting farmers to increase crop production. Despite the year being characterized by the worst drought to have hit the region in 10years, Ali has, throughout the year, been growing vegetables (such as tomatoes, pepper, okra), some cereal crops (such as maize, sorghum) and Sudan grass. Ali was able to cope in this way by applying the drought management knowledge and skills, which he gained from DRR committee members' community action and risk mitigation plans, which he adopted during BORESHA 1&2.

"… this is the worst drought we have experienced in recent history. By now (November 2021) we would have received the 2022 Deyr rains, but nothing has come and there are no signs that the rains will be coming. That is why I planned ahead and planted fodder using the irrigation systems to provide for my livestock", said Ali.

As part of community action plans, the project rehabilitated concrete irrigation canals to reduce water loss through seepage, thereby enabling farmers to access more water; and to effectively use available water throughout the year.

Lessons Learned

- Diverse groups of people including elders, youths, birth attendants, women, PLWDs are custodians of a wealth of knowledge, which contributes to effective DRR planning. For example, the elderly brought knowledge about the history of disasters and coping mechanisms in their community, birth attendants shared knowledge on the impact of disasters on mothers, while young women contributed information on matters relating to access to water.

- Diversity in the selection of DRR Committee members ensures representation from the various groups of people represented in the community. While contributing to the development of more informed DRR action plans, this is also a strategy for mitigating conflict within the community.

- Elders in the group contribute to documenting historical data on disasters and disaster trends which helps effective planning on preparedness and mitigation.

- COVACA has built the capacity of the communities so that they are now able to rank hazards that affect them the most. This has helped them to effectively seek funding to respond to potential risks.

- Direct lobbying for resources to support actioning of DRR plans is effective in ensuring that plans are implemented. It was observed that when the DRR committees, who own the DRR plans, shared these with their elected political representatives for funding and this resulted in a substantial number of actions, from the plan, being implemented.

- With capacity building, communities are able to respond to disasters themselves without waiting for external support. While communities are usually first responders in the event of a disaster i.e., they help each other, the level and nature of their engagement has been enhanced through capacity building so that they now organise themselves and start to mobilise for internal and external resources to action their mitigation or response plans. For example, through monitoring the Jubba river, they observed that the carrying capacity had been exceeded and they started to share early warning messages via SMS. Another community mobilized for resources to hire a tractor for protecting low-lands from flooding caused by water from uplands.

- Rainwater harvesting technology is a great climate adaptation strategy where the community harvests rainwater and utilizes it during the dry spells. This has been observed to be cheaper than having a drought response intervention. It has been observed that where rainwater harvesting structures have been introduced this has resulted in communities saving money, has reduced migration, schools have remained open, and communities only needed to buy very minimal water (if at all).

- The use of the solar powered pump system for irrigation has the potential to be a sustainable means of powering irrigation systems which helps farmers to adapt to climatic

change, especially impacts of climate change on crop production. The solar-powered pump is a long-term solution for food insecurity and has no costs for fuel. In addition there are no emissions therefore no air or soil pollution.

- Participation of the community, in general, in all aspects of the project enhances a sense of ownership of the project by the community. This includes selection of beneficiaries and formation of committees, among other activities. It also helps the supervision of the implemented activities by the community as it is 'their intervention'.
- The main source of information on early warning signs of disasters/shocks at community level were community Barrazas, local leadership and media outlets. Therefore, it is important that any interventions seek to engage these stakeholders when developing early warning systems.
- Sustainability of interventions is critical in addressing community problems for example short term activities are important during emergency, but it is more sustainable to have long term related interventions which build community resilience.
- At the start of the project proper and effective targeting (ensuring representation of all stakeholders) reduces conflicts during the project implementation process and strengthens peaceful co-existence amongst community members as interests of all groups are coherently addressed.
- During cash for work interventions, proper consultation, due diligence and documentation is key for community asset construction because it enhances ownership, project sustainability and transparency, and avoids conflict.

Challenges

- Despite the development and humanitarian interventions, rural populations still suffer from the effects of poor infrastructure, high food prices, growing social problems and political instability. These challenges undermine gains made in resilience programming.
- Recurrent migration related to the search for pasture and water leads to limited participation of communities in development projects.
- Terrorism related insecurity has caused problems such as exodus of skilled non-local workforce from target counties, killings and displacement, closure of government services and amenities such as schools, roads and the transport system.
- Clan dynamics play a critical role in resource distribution, and this may lead to resource-based conflict.
- Complex disasters, such as the current recurring drought, undermine the gains made in resilience building and hence slow down progress in establishing community resilience.

Recommendations for the future

1. Build trust with the community and engage them from the start.

- In order to build trust with communities, implementing organizations should effectively engage appropriate stakeholders i.e. elders, women leadership, youth, people living with disabilities and elected leaders who can help to win trust from communities based on their long-term relationship. The suggested steps for initial engagement are as follows: (1) Contact local authority first (e.g. local government entity, local disaster management agency). (2) Organize a meeting with community representatives, (e.g. community chief, spiritual leader, elder, community committee (if applicable). (3) Explain the purpose of the intervention and have them understand

2. Employ a gender-sensitive perspective in implementation

- In the design of a project, implementing organizations should arrange gender-disaggregated talks where each gender group identifies their vulnerability during and after disasters separately. It is imperative to involve both genders in these deliberations. In carrying out such activities, it is important to conduct gender dynamics assessments to ensure that planning is informed by, and is sensitive and responds to, the dynamics within the community.

3. Deploy community decision-making mechanism

- In order to accommodate different needs of the varied sub-groups of a community, making better use of participatory structures at community level can be considered. Participatory decision-making bodies allow collective decision making within the community and allow a community to take a leading role in managing their own assets and coming up with their own solutions for their challenges. Such forms of 'self-governance' would contribute to making solutions more sustainable in that communities themselves can devise rules that will govern the way their local knowledge is documented, developed and disseminated within and across generations (Ostrom, 1999).
- If there is no such existing structure at village level, development organizations can support the establishment of a community decision making body specifically for disaster risk reduction.

4. Lobby for the need for local knowledge and participation of local communities in the National and County Disaster Risk Reduction framework

- To enable governmental support in such initiatives, the agenda of 'integration of local and indigenous knowledge' should be mainstreamed in the National or County framework for disaster risk reduction. In the framework, the importance of local knowledge in disaster risk reduction needs to be acknowledged as well as the need to actively engage local communities and institutions in DRR projects. Local governments can prepare a Local Action plan for DRR which further specifies basic rules and methods for promoting indigenous knowledge and practices through multiple channels. For example, the community action plan needs to stipulate a requirement for the engagement local people, as custodians of local knowledge, beyond the token once-off consultation meetings or information dissemination forums.

5. Collaborate with and increase direct funding to local actors

- Development agencies should actively work with local-civil organizations, NGOs or research agencies that already have similar experience of integrating local knowledge in DRR at community level. Local civil society actors are physically proximate to local communities and typically have substantial comparative advantages in terms of understanding the local needs and providing culturally appropriate responses. Continuous collaboration with the community enhances checks and balances of community priorities and funding gaps in the action plans that may require external support such as NGOs and Government among others

6. Promote and popularize local knowledge in DRR policies, programmes and education.

- For dissemination of local knowledge across generations, the knowledge should be kept vibrant and alive in communities. Documentation-oriented practice in this field should further broaden its scope into promoting and popularizing local knowledge. In order to make better use of local knowledge, central and local government need to closely work together to develop policies and programmes that connect local knowledge with DRR. BORESHA achieved this by disseminating community action plans at grassroots level and promoting local knowledge in combating disasters. This also requires equipping DRR Committees with early warning tools such as microphones, solar panels, batteries and accessories for charging in remote villages, which should be well stipulated in the policies and programmes

7. Monitor local knowledge on a regular basis.

- As local knowledge is not static, monitoring local knowledge is critical for keeping track of new and/or adapted strategies so that they are documented. While it would be ideal to conduct the process every time a local government revises disaster risk reduction or climate change adaptation plans, it is acknowledged that the costs of delivering this will

be prohibitive. Therefore there is need to consider abridged approaches for ensuring that knowledge is effectively captured (Hiwasaki et al., 2014). Such an iterative process will contribute to increased resilience of communities by documenting local knowledge and practices that evolve over time according to changing environment and climate. Furthermore, project evaluation should assess key indicators such as, popularization of knowledge to communities; improved community resilience; and dissemination of local knowledge over generations. Forums that develop a strategic communication plan with stakeholders and users of local knowledge on DRR should be deliberately created where successes and areas of improvement should be shared and monitored. Government monitoring plans should have such outputs for tracking.

Annexes

1. The COVACA tool

CoVACA%20TOOL.pptx

2. Minutes of cross-border meeting

cross border report11.pdf

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Figure 9: Malkamari water pan that was de-silted and lined in 2020 can now hold water from 4 weeks to up to six months while reducing Households walking distance by 50% in search of domestic water

Figure 10: Camels drink from the rehabilitated earth pan in Kiliwehiri

Figure 11: A woman picks fodder for feeding her herds in Neboi. Fodder store constructed by World Vision