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**MULTINATIONAL RURAL LIVELIHOODS'
ADAPTATION TO CLIMATE CHANGE IN THE HORN
OF AFRICA (RLACC) – KENYA PROJECT**

**REPORT: TRAINING PACKAGE, NGO/CBO
INVENTORY, CBA APPROACHES,
COMMUNITY TRAINING PLANS**

**Training of Non-Governmental Organizations
(NGOs) and Community Based Organizations
(CBOs) on Resilience to Climate Change in an
Agro-pastoral Context**

For the Multinational Rural Livelihoods' Adaptation to Climate Change in the Horn of
Africa (RLACC) – Kenya project

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1. Introduction

Kenya is highly prone to climate events such as droughts and floods, which often cause huge losses and damages to livelihoods and development. Climate change is increasing the frequency and intensity of these climate events, in addition to changing seasonal rainfall patterns, increasing temperatures, among other changes.

The Arid and Semi-Arid Lands (ASALs) in Kenya are particularly susceptible to the increasingly severe climate events and the resultant impacts. This is due to the high dependence on rain-fed agriculture, livestock and natural resource management by the majorly pastoral and agro-pastoral communities in the ASALs. Furthermore, a large percentage of the country's poorest people live in the ASALs and have low levels of social development. This limits their adaptive capacity and ability to recover from one climate shock to the next. As a consequence, climate events such as droughts (as was observed in 2016-2017) largely affect people in the ASALs, with increasing number of people requiring regular humanitarian assistance¹ and social safety net support. To curtail the situation from getting worse, it is critical to build the climate resilience of pastoral and agro-pastoral communities in the ASALs, so that they can withstand and be able to develop in the face of increasing climate shocks and stresses.

The reality is that climate impacts are felt most at community and household level and the results and outcomes of climate resilience actions are also observed at the community and household level. Communities, therefore, need to have individual and collective agency over defining, prioritising, designing, monitoring and evaluating climate change adaptation and resilience actions, and work with county to national level institutions to implement and deliver adaptive solutions. This then means it is imperative to enhance capacities of communities, and organisations supporting them, to undertake design and implementation of locally relevant plans and actions for climate resilient livelihoods and development.

The multinational Rural Livelihoods' Adaptation to Climate Change in the Horn of Africa (RLACC) – Kenya project is being implemented with a the aim of improving resilience to climate change of pastoral and agro-pastoral communities and increase the adaptive capacity of their livelihoods, in the targeted Baringo and Turkana counties in Kenya. The project targets to sensitize, create awareness and build capacity of local CBO's, and NGO's who will in turn train the pastoral and agro-pastoral communities and other stakeholders for improved resilience to climate change.

The training on resilience to climate change in an agro-pastoral context is designed and will be delivered through a consultancy. This report presents:

- A training package that will be used to deliver the training,
- NGOs and CBOs inventory,
- Adaptation technologies and practices,
- An analysis on community based approaches for pastoral and agro-pastoral systems,
- Community training plan for use by the CBOs and NGOs.

¹ See State Department for Development of ASALs, 2020, [Concept Note for the Development of Resilience Programming Framework for the Arid And Semi-Arid Lands In Kenya](#); WVI 2017, [Drought in Kenya: A National Disaster](#)

2. Training package

2.1. Overview of the training modules

The training content outlined below is divided into modules that will be delivered in one of more sessions. The modules have an emphasis on practical implementation, balanced with an introduction to concepts and tools.

The training is structured into five core modules and one extra-curricular module, as outlined in Section 1.1 of the manual. Sections 2 to 7 present details on the individual training modules.

Module 1: Key concepts. This module will provide a re-fresher and help participants to have a common understanding of climate change adaptation and resilience, and key related concepts that will come up during the training. Participants will be provided with a write up of relevant concepts to read on their own, so that much of the time will be spent on practical training on implementation of climate change adaptation and resilience with communities.

Module 2: Understanding climate change and impacts in pastoral and agro-pastoral areas. This module will engage participants to reflect on observed changes in climate and climate-related impacts in the two counties. Participants will then be exposed to information on projected climate change and potential risks, especially to pastoral and agro-pastoral communities in the counties. This will enable participants to know where they can access information on climate change, increase their awareness and improve their understanding of climate information and the implications on risk.

Module 3: Introduction to CBA and resilience frameworks. The module will introduce participants to the Community Based Adaptation framework by CARE International, the Resilience framework by BRACED programme and the Adaptation Good Practice checklist. To enable participants understand these frameworks, the documented climate change adaptation technologies and practices will be mapped against the frameworks. Similar mapping done by the consultant will be presented for validation against mapping done by participants, to help deepen understanding and identifying gaps or challenges with existing adaptation technologies and practices. This mapping with participants will also be a chance to reinforce what 'good practice' in CBA and resilience looks like, towards defining "appropriate community based approaches for pastoral and agro-pastoral systems".

Module 4: Facilitating the CBA CAAPs approach with communities. Building on the understanding of 'good practice' in module 3, module 4 will train participants to facilitate communities to develop Community Adaptation Action Plans (CAAPs). Documented adaptation technologies and practices will be used as case studies in this module, but will not be the focus of the module. This module will have emphasis on how context relevant adaptation technologies, practices and innovations are identified, decided, designed and supported for implementation. The CAAPs process involves seven steps which the participants will be taken through: Launching the CAAPs process, context analysis and stakeholder mobilisation, participatory analysis of climate change vulnerability and adaptive capacity, development of CAAPs, implementation and adaptive management of CAAPs, integration of community adaptation priorities in local development planning and strengthening systems and institutions for CBA.

Module 5: Development of community CAAPs training plans. To ensure ownership of the community CAAPs training plans developed, this session will support participating CBOs and NGOs to develop the training plans themselves. The

module will help participants to design how they will roll out training and facilitating communities to develop CAAPs and the resultant adaptation interventions. The community training plans will cover: identify target communities for the CAAPs training and development based on climate change impact analysis, defining training objectives in context, figuring out a TNA for the community with consideration of previous trainings that have been delivered in the target communities, outlining content from the training, practicing training delivery, defining technical partners who will support the training and their roles, and define timelines. The training plans will be a chance for the CBOs and NGOs to demonstrated use of the knowledge and skills gained on the CAAPs process. The plans will also provide a means for long-term follow-up on trainings that will be undertaken by the CBOs and NGOs, outcomes of the trainings and help define further capacity building needed to enhance the climate change adaptation and climate resilience of communities.

Module 6: Learning journeys. Learning journeys will give participants time to individually reflect and unpack their own narrative on adaptation and climate resilience. This will be followed by an open space to connect with other participants' learning journeys for collective sense making.

2.2. A participatory approach to training and learning

It is expected that the target participants for this training will be adult learners who have technical expertise and experience in agriculture, planning and various fields related to CRM and climate resilience. With this in mind, and considering that training on climate change adaptation and resilience is most useful when it is participatory in design and delivery², the learning approach that will be used to deliver the training will be majorly participatory rather than 'lecture' based. Participatory training methods will be useful for the participants to learn by:

- Thinking through the training content by themselves and giving them the responsibility to reflect on the information shared and work out their own conclusions e.g. on what the processes for planning for CRM and resilience means for their work and people they serve in their context;
- Understanding the concepts, processes and results by relating these with their own values, roles, experiences, aspirations and contexts;
- Applying the knowledge gained in their work and receive benefits and feedback from use of the knowledge.

With this in mind, the training delivery structure is composed of:

Training modules - The training is structured into eight core modules that capture the principles, key issues, methods and tools for planning for climate risk management and resilience.

Presentations - Each module has a kick-off presentation to guide the content and training activities. Additional presentations will support elaboration of specific issues and exercises.

Case studies - Will be used in the modules to make the learning grounded in practical realities.

Group exercises - Practical application is a central pillar of the training. Participants will work together in small groups to confront different views, grapple with tools and methods and build common understanding.

² Mataya, D. M., Vincent, K. & Dougill, A. J. (2020) How can we effectively build capacity to adapt to climate change? Insights from Malawi, *Climate and Development*, 12:9, 781-790, DOI:10.1080/17565529.2019.1694480

Group presentation - At the end of each session, groups will present their work towards knowledge exchange and learning from different ways of approaching an issue. This will help to focus shared learning throughout the modules.

Individual journal - Everyone is encouraged to keep track of what they are learning. Not just the content but your thoughts, feelings, inspiration, excitements, questions and worries.

Open Space - A session will be reserved for optional sessions to be defined by participants or for addressing issues in the parking lot.

Table 1: Key elements of participatory training and learning

Trainer asks questions , facilitates discussions
Both the trainer and the trainees are knowledgeable and experienced
Everyone must reflect on their own or together with others, share ideas, experiences and expertise
Trainees are active, analytical , ask questions and explore alternatives
Trainees develop their own answers - e.g. there could be multiple different answers or ways of doing things considering the complexity of building climate resilience in uncertain contexts

3. Module 1: Key concepts on resilience to climate change

3.1. Overview

A number key concepts on resilience to climate change need to be understood in order for NGOs and CBOs to effectively support communities to enhance resilience. This module will have an emphasis on participants having a common understanding of resilience to climate change, and key related concepts that will come up during the training.

3.2. Purpose of the module

To create common understanding of key concepts in building resilience to climate change.

3.3. Learning Objectives

1. Establish a collective understanding of climate resilience based on various definitions and agree on working definitions.
2. Discuss the need for climate resilience in agro-pastoral contexts in Kenya, based on available information and case studies.

3.4. Learning process

Participants will be involved in examining various definitions of climate resilience, and agree on working definitions that will be used throughout the training.

3.5. Exercises

Participants will explore the various definitions of climate resilience.

1. Choose one of the common definitions of climate resilience. How have you seen this framing applied in practice?
2. Looking 5 years into the future, can you anticipate a successful outcome of the planned climate resilience intervention in an agro-pastoral context following this definition? Or pitfalls that will need to be resolved in the future?

3.6. Useful resources

- Adaptation Principles: A Guide for Designing Strategies for Climate Change Adaptation and Resilience <http://hdl.handle.net/10986/34780>
- AR5 Glossary https://www.ipcc.ch/site/assets/uploads/2019/01/SYRAR5-Glossary_en.pdf
- Denton, F., T.J. Wilbanks, A.C. Abeysinghe, I. Burton, Q. Gao, M.C. Lemos, T. Masui, K.L. O'Brien, and K. Warner, 2014: Climate-resilient pathways: adaptation, mitigation, and sustainable development. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1101-1131.

- Climate Action Pathway: Climate Resilience
https://unfccc.int/sites/default/files/resource/ExecSumm_Resilience_0.pdf
- Climate resilience planning toolkit - <http://www.braced.org/resources/i/climate-resilient-planning-toolkit/>
- Resilience https://www.preventionweb.net/disaster-risk/concepts/resilience/?utm_source=Facebook&utm_campaign=PreventionSavesLives
- Strengthening Climate Resilience : Guidance for Governments and Development Co-operation https://www.oecd-ilibrary.org/sites/4b08b7be-en/1/3/1/index.html?itemId=/content/publication/4b08b7be-en&_csp_=c6f3f519f231a3bb752ee0777d54c922&itemIGO=oecd&itemContentType=book&_ga=2.137456752.1163103763.1623838483-1585096954.1620650835#boxsection-d1e1359
- IPCC, 2018: Annex I: Glossary [Matthews, J.B.R. (ed.)]. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press
- AfDB Climate Change in Africa <https://www.afdb.org/en/cop25/climate-change-africa>
- Tracking and measuring resilience in large programmes: lessons from BRACED <https://www.itad.com/wp-content/uploads/2020/02/BRCJ6657-Tracking-Measuring-181203-WEB-1.pdf>

4. Module 2: Understanding climate change and impacts in pastoral and agro-pastoral areas

4.1. Overview

Participants will reflect on observed changes in climate and climate-related impacts in the two target counties. Participants will then be exposed to information on projected climate change and potential risks, especially to pastoral and agro-pastoral communities in the counties. This will enable participants to know where they can access information on climate change, increase their awareness and improve their understanding of climate information and the implications on climate risk.

4.2. Purpose of the module

To assess to sensitize and enhance awareness of participants on climate change and impacts.

4.3. Learning Objectives

1. Exchange climate change stories and experiences in agro-pastoral contexts.
2. Access and understand available information on climate change and climate impacts.
3. Common agreement on the need for climate resilience in agro-pastoral systems

4.4. Materials needed

1. Computers to access online sources of climate change information

4.5. Learning process

Ongoing observations on climate variability, climate change and resultant impacts on agro-pastoral systems will be shared by participants and discussed, based on participants' own experiences as well as available information. This will form a basis for a common agreement on why resilience to climate change is a critical part of agro-pastoral systems and development in the target ASAL counties.

4.6. Exercises

1. Participants will be divided into small groups to share among each other their observations and experiences on climate change and impacts on agro-pastoral systems in the target counties.
2. Available information on climate change and impacts will then be presented, and participants guided to understand the information. They will then relate this to their own observations and perceptions of future climate change.
3. Explore various sources of information on climate change, risks and impacts, and interpreting the information available.
4. Overall reflections on what climate variability and climate change means for agro-pastoral systems and the need to enhance climate resilience

4.7. Useful resources

- Climate Change Knowledge Portal
<https://climateknowledgeportal.worldbank.org/>

- Climate Information Portal <https://cip.csag.uct.ac.za/webclient2/app/>
- CORDEX: <https://cordex.org/data-access/>
- INFORM index <https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk/Country-Profile/moduleId/1767/id/419/controller/Admin/action/CountryProfile>
- KMD Maproom <http://kmddl.meteo.go.ke:8081/maproom/index.html>
- SC�PEA ICPAC (Strengthening Climate Information Partnerships - East Africa is a UKaid-funded project of the WISER programme (Weather and climate Information and SERvices for Africa)
<http://scipea.iri.columbia.edu/maproom/index.html>
- The International Disasters Database EM-DAT <https://www.emdat.be/>
- ThinkHazard <https://thinkhazard.org/>
- Unscrambling climate and weather information
<http://www.braced.org/resources/i/factsheet-unscrambling-climate-weather-information/>
- WorldClim Portal <https://www.worldclim.org/>

5. Module 3: Introduction to Community Based Adaptation (CBA) and climate resilience frameworks

5.1. Overview

Adaptation and resilience need to be structured in a meaningful framework in order to be practically implemented. The module will introduce participants to the Community Based Adaptation (CBA) framework by CARE International and the Resilience framework by the BRACED programme. These frameworks have been used to support farmer, pastoral and agro-pastoral communities in Africa to adapt and build resilience to climate change. In addition, participants will be introduced to the Adaptation Good Practice (AGP) checklist, a useful tool for checking what good adaptation would look like in a particular context and to design of projects.

5.2. Purpose of the module

To understand frameworks that are useful for building the climate resilience of communities and their livelihoods.

5.3. Learning Objectives

1. Understand the CBA framework and the climate resilience frameworks
2. To be able to use the AGP checklist to ensure that essential practices and approaches are integrated in supporting effective climate resilience outcomes and impacts.

5.4. Materials needed

1. AGP Checklist
2. Documented climate change adaptation technologies and practices in the target counties

5.5. Learning process

To enable understanding of the CBA and climate resilience frameworks, participants will map the documented climate change adaptation technologies and practices in the two counties against the frameworks. Similar mapping done by the consultant will be presented for validation against mapping done by participants, to help deepen understanding and identifying gaps or limitations with existing adaptation technologies and practices, especially in consideration of the resilience capacities needed (i.e. anticipatory, absorptive, adaptive and transformative capacities). This mapping with participants will also be a chance to reinforce what 'good practice' looks like, towards defining "appropriate community based approaches for agro-pastoral systems".

5.6. Exercises

In groups, participants will:

1. Map climate change adaptation technologies and practices against the CBA and climate resilience frameworks
2. Identify gaps or limitations in the adaptation technologies and practices towards enhancing climate resilience
3. Use the AGP checklist to assess to what extent the adaptation technologies and practices conform to good practice. The AGP will also help participants to think

through what more needs to be done to enhance the resilience of agro-pastoral communities.

5.7. Useful resources

- Adaptation Good Practice Checklist <https://careclimatechange.org/adaptation-good-practice-checklist/>
- Community-Based Adaptation in Practice: CARE Global Overview <https://careclimatechange.org/community-based-adaptation-in-practice/>
- Climate resilient planning toolkit <http://www.braced.org/resources/i/climate-resilient-planning-toolkit/>
- Community based adaptation: an empowering approach for climate resilient development and risk reduction <https://www.preventionweb.net/publications/view/36410>
- Defining disaster resilience: a DFID approach paper <https://www.preventionweb.net/publications/view/42804>
- Planning for resilience: A practitioner's manual to support community based adaptation to climate change <https://www.preventionweb.net/publications/view/48727>
- The 3As: tracking resilience across BRACED <https://odi.org/en/publications/the-3as-tracking-resilience-across-braced/>

6. Module 4: Facilitating the CBA CAAPs approach with communities

6.1. Overview

This module will build participants' understanding of participatory identification, decision and design of context relevant adaptation technologies, practices and innovations, and how these can be and supported for implementation. The Community Adaptation Action Plans (CAAPs) approach will be the focus of this module. CAAPs brings together local stakeholders in an empowering community-led planning and iterative learning process that builds their adaptive capacity. It devolves decision making to the lowest appropriate level. CAAPs result in: Tangible but flexible plans that present a 'basket of options' for communities to reduce their vulnerability and enhance resilience to climate change over time, and context specific climate resilience adaptation technologies and practices .

6.2. Purpose of the module

To understand and have the skills to facilitate the CAAPs approach with agro-pastoral communities.

6.3. Learning Objectives

1. Understand the steps involved in the CAAPs approach
2. Practice using the tools and facilitating the CAAPs approach

6.4. Materials needed

1. Practitioner guidance brief on CAAPs

6.5. Learning process

Building on the understanding of 'good practice' in module 3, module 4 will help participants to understand and practice facilitating the seven steps in the CAAPs approach. These steps are: Launching the CAAPs process, context analysis and stakeholder mobilisation, participatory analysis of climate change vulnerability and adaptive capacity, development of CAAPs, implementation and adaptive management of CAAPs, integration of community adaptation priorities in local development planning and strengthening systems and institutions for CBA. Documented adaptation technologies and practices will be used as case studies in this module, but will not be the focus of the module. This module will draw on participants' experience with participatory tools and approaches.

6.6. Exercises

In the exercises in this module, participants will:

1. Practise facilitating each of the seven steps in the CAAPs approach with agro-pastoral communities, including use of various participatory tools and facilitation methods
2. Examine the difference between the adaptation technologies and practices that are emerging from the CAAPs practise and those ongoing in the two counties
3. Discuss how the CAAPs approach can help to re-design some of the existing adaptation technologies and practices

4. Reflect on how the CAAPs approach can be further improved to suit agro-pastoral systems in the two target counties.

6.7. Useful resources

- Adaptation Planning with Communities: Learning from Practice in Embu County, Kenya. <https://careclimatechange.org/wp-content/uploads/2019/06/Adaptation-Planning-with-Communities-Learning-Report.pdf>
- ALP Adaptation Strategies Compendium. <https://careclimatechange.org/alp-adaptation-strategies-compendium/>
- Soanes, M., Bahadur, A., Shakya, C., Smith, B., Patel, S., Rumbaitis del Rio, C., Coger, T., Dinshaw, A., Patel, S., Huq, S., Musa, M., Rahman, F., Gupta, S., Dolcemascolo, G. & Mann, T. (2021). *Principles for locally led adaptation: A call to action*. IIED, London
- Managing uncertainty under multiple drivers and disruptors
<https://www.weadapt.org/knowledge-base/adaptation-planning/managing-uncertainty-under-multiple-drivers-and-disruptors>
- Practitioner Brief 1: Adaptation Planning with Communities.
<https://careclimatechange.org/adaptation-planning-with-communities-practitioner-brief-1/>
- Review of Current and Planned Adaptation Action in Kenya
<https://www.iisd.org/publications/review-current-and-planned-adaptation-action-kenya>
- Routes to Resilience: Insights from BRACED to BRACED-X.
<https://www.itad.com/project/building-resilience-and-adaptation-to-climate-extremes-and-disasters-braced/>

7. Module 5: Development of community CAAPs training plans

7.1. Overview

The module will help participants to design how they will roll out training and facilitating agro-pastoral communities to develop CAAPs and the resultant adaptation technologies and practices. The training plans will be a chance for the CBOs and NGOs to demonstrated use of the knowledge and skills gained on the CAAPs approach and adaptation good practice. The plans will also provide a means for long-term follow-up on trainings that will be undertaken by the CBOs and NGOs, outcomes of the trainings and help define further capacity building needed to enhance the climate change adaptation and climate resilience of agro-pastoral communities in the two counties.

7.2. Purpose of the module

To develop plans to train communities on CAAPs as an approach to developing and implementing climate resilient adaptation strategies

7.3. Learning Objectives

1. Develop community training plans
2. Enhance skills for facilitating community training and planning

7.4. Materials needed

1. Template for developing the community training plans

7.5. Learning process

To ensure ownership of the community CAAPs training plans developed, this session will support participating CBOs and NGOs to develop the training plans themselves. The community training plans will cover: identification of target communities for the CAAPs training and development based on climate change impact analysis, defining training objectives in context, figuring out a training needs assessment for the community with consideration of previous trainings that have been delivered in the target communities, outlining content from the training, practising training delivery, defining technical partners who will support the training and their roles, and define timelines.

7.6. Exercises

In groups, participants will:

1. Define what needs to be done to train and facilitate communities on the CAAPs approach (see module 6) and detail this in a training plan
2. Practice developing content for training communities and facilitating the training
3. Map stakeholders who need to be involved, their roles and how they will bring them in to support the community engagements

7.7. Useful resources

- Adaptation Planning with Communities: Learning from Practice in Embu County, Kenya. <https://careclimatechange.org/wp-content/uploads/2019/06/Adaptation-Planning-with-Communities-Learning-Report.pdf>

- ALP Adaptation Strategies Compendium. <https://careclimatechange.org/alp-adaptation-strategies-compendium/>
- Participatory learning and action special issue: Community-based adaptation to climate change <https://www.weadapt.org/knowledge-base/global-initiative-on-community-based-adaptation-gicba/community-based-adaptation-to-climate-change>
- Practitioner Brief 1: Adaptation Planning with Communities. <https://careclimatechange.org/adaptation-planning-with-communities-practitioner-brief-1/>
- Routes to Resilience: Insights from BRACED to BRACED-X. <https://www.itad.com/project/building-resilience-and-adaptation-to-climate-extremes-and-disasters-braced/>
- Vincent, K. & Colenbrander, W. (2018). Developing and applying a five step process for mainstreaming climate change into local development plans: A case study from Zambia. *Climate Risk Management* 21, 26–38.

8. Module 6: Learning journeys.

8.1. Overview

Learning journeys will give participants time to individually reflect and unpack their own narrative on adaptation and climate resilience. This will be followed by an open space to connect with other participants' learning journeys for collective sense making.

8.2. Purpose of the module

Encourage critical thinking and sense making to internalise training content and enhance knowledge on climate resilience.

8.3. Learning Objectives

1. To learn through self-reflection and sense-making
2. Make steps towards developing community training plans

8.4. Materials needed

1. Content generated each day from the training modules
2. Individual note books or computers

8.5. Learning process

Participants will come to the training with different views, rich experience and varied knowledge and understanding of climate change, risk management and resilience. This extra-curricular module, done from Day 1 to Day 3, will provide participants the space to be aware of their own learning processes and internalise learning. This will be by critically thinking about their existing knowledge and sense making of new knowledge gained. Sense making will help participants to build explanations to resolve perceived gaps or conflicts in knowledge, by identify new ideas, tensions, questions and progress on learning from content and interactions in the different modules. Guiding questions will be provided to help with individual and group reflection and sense making of the training content. Participants will be encouraged to ask further questions, add their thinking and knowledge to deepen learning and point out further capacity building/ training needs. Questions will be put in a parking lot that will be addressed in an open session during the training.

8.6. Exercises

1. Individual self-reflection using learning journals.
2. Reflections in pairs for sense making and to exchange learning gained. This will also involve participants incrementally mapping out what needs to be done to train and facilitate communities on the CAAPs approach

8.7. Useful resources

- Gilligan, C. (2013). Sensemaking for sustainable development : complexity thinking as a behaviour change approach. In: 16th ERSCP (European Roundtable on Sustainable Consumption and Production conference) and 7th EMSR, Istanbul, Turkey.
https://shura.shu.ac.uk/8540/1/Sensemaking_for_Sustainable_development_ER_SCP-EMSU_conference_submission_copy_-_Copy.pdf

- Lynam, T., and I. Walker. 2016. Making sense of climate change: orientations to adaptation. *Ecology and Society* 21(4):17. <http://dx.doi.org/10.5751/ES-08886-210417>
- ODI. Making sense of learning and decision-making. <https://odi.org/en/about/features/making-sense-of-learning-and-decision-making/>
- Milne, K. M. G. 2015. Can sense-making tools inform adaptation policy? A practitioner's perspective. *Ecology and Society* 20(1): 66. <http://dx.doi.org/10.5751/ES-06791-200166>
- Odden, T. O. B. and Russ, R. S. (2019). Defining sensemaking: Bringing clarity to a fragmented theoretical construct. *Science Education* 103:187–205. DOI: 10.1002/sce.21452
- Vanderlinden, J., Juan Baztan, Omer Chouinard, Mateo Cordier, Charlotte Da Cunha, Jean-Michel Huctin, Alioune Kane, Gregory Kennedy, Inga Nikulkina, Vyacheslav Shadrin, Céline Surette, Diatou Thiaw, Kaleekal T. Thomson (2020). Meaning in the face of changing climate risks: Connecting agency, sensemaking and narratives of change through transdisciplinary research. *Climate Risk Management*, Volume 29. <https://doi.org/10.1016/j.crm.2020.100224>.

9. Inventory of NGOs and CBOs

An inventory of NGOs and CBOs in the two counties who are active in work on agriculture and environment is presented in the Tables below. Some of the NGOs and CBOs are also supporting work on climate change adaptation.

Baringo County

S/No	Name of Organization	Activities	Area of coverage	Contact person	Email	Mobile
1.	Kerio Valley Community Organisation	Lobbying for sustainable exploitation of NRM, advocacy for sustainable exploitation of natural resources, Capacity building on NRM	County wide	Sila Wanyoike	skwonyike@gmail.com skwonyike@kv-co.org	0722 496632
2.	Mwafrika development initiative	Environmental health	County wide	Jackson Obegi		0721 247276
3.	Advocacy for sustainable Women Empowerment programme (ASWEP)	Capacity building on reproductive health, IGAs, Environmental protection,	County wide	Roxana	aswep15@gmail.com	0722 560279
4.	Farm initiative programme	Capacity building on rangeland management, livestock improvement and bee keeping	County wide	Wafula Mix	farmfip@gmail.com	0723 301783
5.	Christian Impact Mission (CIM)	Capacity building on water harvesting for crop production	Tiaty sub county	Jimmy Gor	jimgor2001@gmail.com	0724 284404
6.	Kaboskei kerio environmental conservation	Capacity build on environmental conservation	Barwesa ward	Baliat		0725 121495
7.	Boresha Sacco	Financial services	Barwesa ward	Douglas Komen	barwesa@boreshasacco.co.ke douglaskomen@gmail.com	0721 864390
8.	CORKE (Community Resilience in Kerio River Escosystem)	Implementing community resilience activities to climate change	West Pokot, Baringo and Elgeyo marakwet	John Ng'ang'a	jinganga@ncck.org	0721 420153

S/No	Name of Organization	Activities	Area of coverage	Contact person	Email	Mobile
9.	Action aid	Building community on resilience to climate change, lobbying budgetary allocation to disasters in county	Tiaty sub county	Lucy Ntongai	Lucy.Ntongai@actionaid.org	0712 961636
10.	Pamoja transformation	Resilience building on communities & rangeland management	County wide	Paul Odumbe	odumbe@pamoja-transformation.org	0725 633776
11.	African wildlife protection fund	Training farmers on natural resource management/climate smart technologies	Barwesa	Stanley Chehelgo	africanwildlife protectionfund@gmail.com	0724 014406
12.	RECONCILE	- Enhance the effectiveness of government led disaster response by improving linkages between community and county level DRR action planning - Improve household agricultural productivity through improved access to livestock production services and nutrition sensitive agricultural practices, for better food and nutrition security Financing and technical services	Baringo South and Tiaty East	Beatrice Robert	beatrice@reconcile-ea.org robert@reconcile-ea.org	0715 809950 0725 710567
13.	Sustainable Agriculture Information (SAI)	- Support Resilient Livelihoods and Promotion of Climate Smart Agriculture and Drought Risk Management - Strengthening farmer groups - Improved Access to Markets - Land & Water Management - Nutrition & Dietary Diversity - Enterprise Development - Improved Agric/livctk	Baringo South and Mogotio	George Odinya	george.odinya1@gmail.com george.odinya@sustainetgroup.com	0729 206742

S/No	Name of Organization	Activities	Area of coverage	Contact person	Email	Mobile
		productivity - Agricultural Diversification- Nutrition sensitive - Financing and technical services				
14.	Farming Systems Kenya	- Support Resilient Livelihoods and Promotion of Climate Smart Agriculture and Drought Risk Management - Strengthening farmer groups - Improved Access to Markets - Land & Water Management - Nutrition & Dietary Diversity - Enterprise Development - Improved Agric/livctk productivity - Agricultural Diversification- Nutrition sensitive - Financing and technical services	Baringo North, Tiaty East & Tiaty West	Kones Cheruiyot	konescheruiyot1991@gmail.com andijoel95@gmail.com kosgeylotulia@gmail.com	0728 719442 0726 473895 254 27373268
15.	Anglican Development Services-North rift.	Capacity building, climate change adaptation, education governance Health services support, WASH, VCD, Economic livelihood support, Peace and security and humanitarian support, Grazing plans/policy support, Livestock advisories	Baringo South, Tiaty East & Tiaty West	Peter David	peterd872@gmail.com	0724 618744

Turkana County

S/N o	Name of Organization	Activities	Area of coverage	Contact person	Email	Mobile
1.	Sapcone	Agriculture, Girl safe spaces, Smart Agriculture, Agro Ecology and Natural Resource and Land use Planning	Turkana North, Loima, North and Central	Joseph Imuton	imutonjoseph@gmail.com	0718 361000
2.	Karmo	Agriculture, Human Rights, Climate change	Turkana South, Loima	Fred Ekitela	karmoturkana@gmail.com	0711 636297
3.	Africare	Agriculture	Turkana South, Loima	Johnstone Moru	jmoru@panafricare.org	0726 953096
4.	Agency for Pastoralists Development (APaD)	Livelihoods, Village Savings and Loans (VSLAs)	Loima, Turkana West	Sam Kimeli	samkemeli@apad.org	0711 764350
5.	Blessed Community Empowerment Organization (BLEC)	Village Savings and Loans (VSLAs)	Turkana Central	Frankline Erukudi	arionggeofry@gmail.com	0705 153788
6.	Turkana Christian Development Mission (TCDM)	Livelihoods	All	Peter Elim	turchdevemission@gmail.com	0720 734287
7.	Turkana Pastoralist Development Organization-TUPADO	Livestock, Peace	Turkana East, Turkana West, Turkana North	Sam Ekal	samekal@gmail.com	0715 776561
8.	LOKADO	Training of CMBRRs, livestock vaccination, build water pans and boreholes, Forest Restoration	Turkana West, Loima Sub County	Nancy Najula	nancynajula@gmail.com	0723 133545
9.	TUPADO	Climate smart agriculture, kitchen gardening, tree planting, reseeding of rangeland, training of CMDRRs	Turkana Central, Turkana West and Loima SC	David Kangole	david.kangole@tupado.org	0707 367110

S/N o	Name of Organization	Activities	Area of coverage	Contact person	Email	Mobile
10.	Child Fund	Farmings, Orange Fleshed Sweet Potato (OFSP), Tree Planting and Conservation, Climate Focust through Indiginious methods, Climate Change Governance. Training communties on rangeland management	North, Central, Loima and South	Lotesroi Etabo	lotesroi_etabo@yahoo.com	0726 810286

10. Adaptation technologies and practices in pastoral and agro-pastoral contexts

10.1. Baringo

Baringo county is experiencing climate change in form of erratic seasonal rainfall, increased frequency and severity of droughts, floods and high temperatures. Droughts are especially problematic, impacting livelihoods and resources in various ways (see Figure 1). Climate change projections from 2021 to 2065 show an increased likelihood of rainfall becoming more variable, prolonged moisture and heat stress (MoALF, 2017). Socio-economic factors such as the high incidence of poverty (52.2%) with 35.9% of the working population employed in family agricultural land, 89% of the population being rural and a majority of them are highly dependent on rain-fed agricultural livelihoods, low literacy levels (Baringo CIDP, 2018) among others make the population and agriculture in the county highly vulnerable to climate variability and climate change. Enhancing adaptation and building the resilience of the people and systems in Baringo County is therefore a critically important part of development in the county.

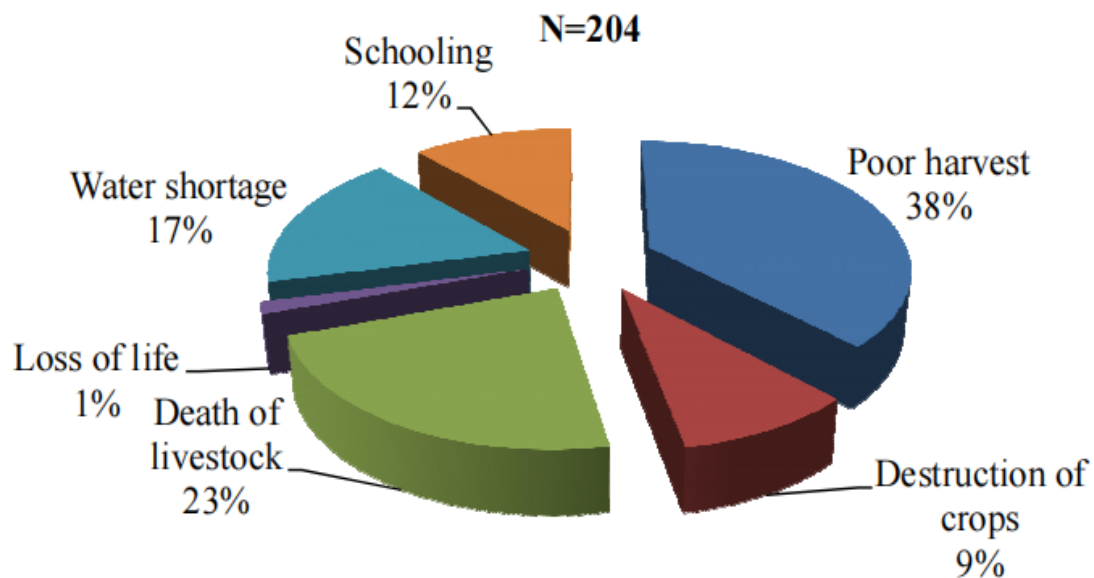


Figure 1: Effects of droughts on households in Baringo. Source: Manyonge et al., 2019

There are ongoing efforts to adapt to the changes in climate, as presented in Table 2, including indigenous ways of coping. However, Some of the indigenous coping and adaptation strategies have not been effective (Manyonge et al., 2019). Communities remain highly vulnerable to climate hazards partly because financial and technical capacity to scale up existing adaptation interventions are insufficient. Greater investment in long-term resilience building and climate change adaptation is needed³.

³ MoALF (2017). Climate Risk Profile for Baringo County. Kenya County Climate Risk Profile Series. The Ministry of Agriculture, Livestock and Fisheries (MoALF), Nairobi, Kenya.

Table 2: Adaptation practices and technologies in Baringo County

Adaptation practice	What does the related technology look like?	What adaptation and climate resilience benefits or outcomes have been observed from this adaptation technology/ practice?
Water harvesting	Holes are dug in the ground and liners are put in the hole to collect water when it rains	<p>The water collected is used when it is dry. It is considered as a low-cost technology that communities can implement with minimal support. Hence a sustainable way for communities to have access to water for their livestock to manage drought.</p> <p>Having a local water source has reduced the distance and time households spend to access water</p>
Soil conservation	<i>Vetiver</i> grass is grown for soil conservation. The mature foliage is tough and coarse which helps with managing soil erosion caused by runoff during heavy rain events. It is useful for sediment control on sloping farmlands	
Fodder production and pasture conservation	<i>Vetiver</i> and <i>Boma Rhodes</i> grass are grown for fodder production. <i>Vetiver</i> grass is a drought resistant grass that grows well in the ASAL lowlands. <i>Boma Rhodes</i> grass seeds in pasture conservation as they are easy to establish and manage. The grasses are harvested, baled into hay and stored for used when it is dry of during a drought	<p>Stored fodder and hay has protected livestock from dying during a drought.</p> <p>The hay is sold to neighbouring counties as an income generation activity</p>
Seed banks for fodder	Fodder seeds are harvest and stored. They are then used for fodder production.	Fodder seeds have been sold to other communities to generate income. The seeds have also helped to expand the area under pasture.
Diversification of livelihoods	Diversification of livelihoods includes bee keeping, fishing and charcoal burning and trading. There is also diversification of livestock types and varieties to manage drought.	This is helping to mitigate climate impacts such as loss of livelihood, crop failures and low yields

10.1.1. How are the adaptation technologies and practice decided? What tools or methods were used to make these decisions?

It is not clear what methods or tools were used to inform the decision on the adaptation technologies and practices presented above. Decisions seems to be based on the local challenges, needs and opportunities, which include:

- The frequency of drought has increased, now occurring every 3 years. Sometimes the droughts occur over two or three consecutive years, severely affecting livelihoods.
- Scarcity of water, especially during dry season in Jan to March, and when a drought occurs
- Plenty of water goes to waste when it rains, which can be harvested and conserved for later use
- During a drought, households would have to walk a long distance to get water
- Lack of access to clean water causes challenges such as outbreak of diseases like cholera
- Droughts cause livestock death (up to 50% in a bad drought) due to lack of water and pasture. This disrupts livelihoods, especially in the ASAL lowlands where livestock rearing is the main livelihood activity
- Low soil productivity together with soil erosion is causing low crop yields

10.1.2. Is indigenous knowledge used?

Indigenous knowledge is used in Baringo county in various ways to support adaptation to climate change. This knowledge includes:

- In Kerio Valley, communities dig out the sand in the valley to get clean water
- Indigenous knowledge is used to tell when rains will start. The local forecasting is done by observing stars, vegetation and the intestines of goats. In an approach called Participatory Scenario Planning⁴, local forecasting has been combined with seasonal forecasts from the Kenya Meteorological Department and used to inform seasonal livelihood actions.
- Communities fence pastures use thorny bushes and tree branches to control soil erosion. This is done as an adaptable practice, with low-cost materials that are within reach in their environment
- Herd splitting is done as a coping strategy during drought. This involves sharing livestock among family and friends in neighbouring counties such as Elgeyo Marakwet and Uasin Gishu. This coping strategy is highly practised by many households, and is an indication of strong social capital in the county⁵.

10.2. Turkana

Turkana County is one of the poorest counties in Kenya with 79.4 of the population living below the poverty line and has a high dependency ratio (0.81 in 2017). 80% of the county is categorised as either arid or very arid. With only about 30% of the county's soil rated as moderately suitable for agricultural production, nomadic pastoralism is the main livelihood in the county. 50% of the land in the county is degraded and threatens food and grazing land production (Turkana CIDP 2018-

⁴ See CARE (2018). <https://careclimatechange.org/practical-guide-to-participatory-scenario-planning-seasonal-climate-information-for-resilient-decision-making/>

⁵ Manyonge, P., M., Nabiswa, F., & Mugalavai, E. (2019). Household Indigenous Drought Coping and Adaptation Strategies in Baringo County, Kenya. *Asian Journal of Environment & Ecology*, 10(4), 1-9. <https://doi.org/10.9734/ajee/2019/v10i430121>

2022). These socio-economic factors make the county highly vulnerable to climate change.

Some of the climate changes include, rainfall is highly variable, droughts are prolonged and are now occurring every 1 to 3 years. Drought lead to huge losses in livestock (about 60% of cattle and 40% of shoats in the 2008/2009 drought event) and exacerbate existing resource-based conflicts between herding groups over water and pasture resources⁶. There also is an increased incidence of riverine flash floods that damage assets and infrastructure. Climate change and vulnerability levels have further reduced livelihood productivity in the county, with fewer people in Turkana able to make a living from livestock keeping alone.

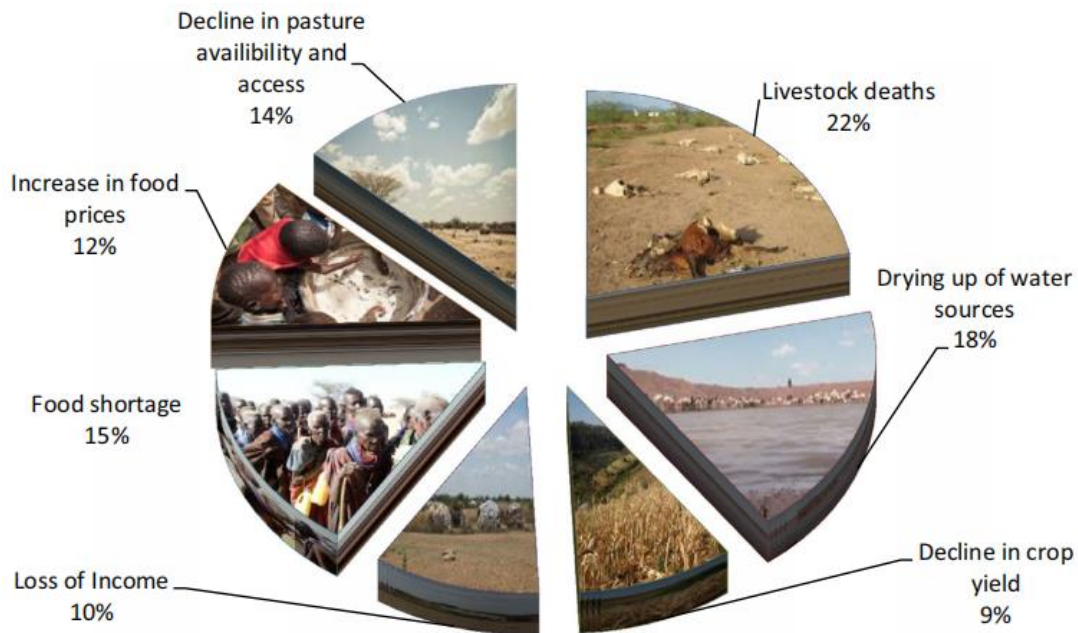


Figure 2: Impacts of drought in Turkana County. Source: Opiyo et al., 2015

Major ongoing adaptation practices and technologies in Turkana County are presented in Table 3.

Factors limiting enhanced and sustained adaptation practices and technologies include: inadequate cash income and capital to invest in some of the technologies, insecurity, lack of access to affordable credit facilities, illiteracy and lack of technical knowledge, inadequate markets and lack of inputs and equipment for agricultural practices (Opiyo et al., 2015). Many of these factors are related to the low levels of development in the county. Development efforts in the county must, therefore, make adaptation and enhancing resilience to climate change a priority integral part of investments now and in the future.

⁶ Opiyo, F., Wasonga, O., Nyangito, M. et al. Drought Adaptation and Coping Strategies Among the Turkana Pastoralists of Northern Kenya. *Int J Disaster Risk Sci* 6, 295–309 (2015). <https://doi.org/10.1007/s13753-015-0063-4>

Table 3: Adaptation practices and technologies in Turkana County

Adaptation practice	What does the related technology look like?	What adaptation and climate resilience benefits or outcomes have been observed from this adaptation technology/ practice?
Kitchen gardens	Planting of vegetables and trees.	This has especially targeted women. Women (mother-to-mother) support groups have engaged with kitchen gardens and are selling vegetables grown to schools and market areas. They have also formed Village Savings and Loans (VSLAs) that are helping them invest more in the kitchen gardens.
Rehabilitation of rangelands	Rangeland reseeding is being done	
Local land use governance	<p>Grazing areas have been demarcated and reserved to be used during the dry or drought season. Bylaws have been developed to manage the rangelands, including penalties if communities do not follow the plan for when to use the demarcated areas.</p> <p>Committees have been established to manage water resources, rangeland reseeding, and livestock disease reporting.</p>	Communities have started to embrace the rangeland management, with the change in mindset helping to build their resilience
Fodder production	Production of drought resistant fodder is done by households living along the river. The fodder is harvest and baled for use when it is dry. Fodder seeds are harvested and used for reseeding.	<p>Fodder production has enable migrating pastoralists to leave small livestock behind as they could now access feed. This is supporting improved household nutrition from access to milk. The small livestock are also used to fetch water.</p> <p>The baled hay is being sold to generate income.</p>
Crop diversification	Farmer communities have been trained to shift from subsistence maize and sorghum production to drought resistant and high value crops e.g. green grams,	<p>Crop diversification has enabled sustained income for farmers, including the youth.</p> <p>A reduced number of people are involved in charcoal burning as</p>

Adaptation practice	What does the related technology look like?	What adaptation and climate resilience benefits or outcomes have been observed from this adaptation technology/ practice?
	water melon and tissue culture bananas.	an IGA, which exposes the land to flood impacts.
Flood-based Farming	Spate irrigation technology utilises flood water from Lagas as source of water for crop production	The re-introduction of spate irrigation in Turkana County is relatively new; resilience outcomes are yet to be observed
Small-scale irrigation	Irrigation is done along the riverine areas, and mainly focusses on growing crops: sorghum, maize, green grams, cowpeas, vegetables, watermelon, pumpkins, gourds, and bananas	
Livestock diversification	Livestock species kept include camels, cattle (East African Zebu), sheep (Red Maasai), goats (East African), donkeys and chicken	As they have different water and feed requirements, the diversified livestock species spread the risk of total livestock loss in case of drought. Households with diversified livestock have higher off-take potential and therefore improved access to food during drought (Opiyo et al, 2015).

10.2.1. How are the adaptation technologies and practice decided? What tools or methods were used to make these decisions?

Similar to Baringo County, there is no clarity on tools or methods that have been used to make decisions on the adaptation technologies and practices. Local challenges, needs and opportunities that have shaped the development of adaptation technologies and practices are:

- Support from development partners in response to climate events, such as the devastating drought in 2017
- Availability of technical expertise e.g. from ILRI who have supported the mapping of rangelands for demarcation of grazing areas and providing training on best practices
- Community experiences and coping strategies inform discussions on alternatives to try
- Learning from what has worked elsewhere

10.2.2. Is indigenous knowledge used?

Local indigenous knowledge used to cope with climate change, either as standalone practices or together with the above technologies and practices are:

- Communities have some knowledge on grazing patterns and have community resource maps
- Forecasting weather patterns based on local indicators
- Known livestock behaviour is used to detect diseases
- Communities have traditional ways of developing flood banks that they use for small-scale irrigation
- Communities use technology similar to Zai pits to collect rain water and sediment for fodder production

During drought, pastoralists migrate with their livestock to other areas within the county, and in neighbouring counties or countries such as Ethiopia

11. Community based approaches for pastoral and agro-pastoral systems

Community based adaptation (CBA) is broadly considered as community-led or community-managed action on climate change adaptation, that is based on communities' priorities, needs, knowledge and capacities⁷. The aim of CBA is to support the adaptation needs of the most vulnerable people, who are often poor and marginalised people living in high-risk environments⁸. CBA may involve participatory learning and problem-solving, adaptation action - research, empowering communities to use their own knowledge and decision-making processes to take climate action, enhancing agency and voice on local climate action and finance, collaborative planning and local implementation of context specific climate adaptation initiatives⁹, among other forms.

Considering this broad definition, communities, CBOs and NGOs are implementing a number of adaptation technologies and practices that they don't necessarily label as CBA or resilience. To address this, information gathered on adaptation technologies and practices (in Section 10) are mapped below onto the well developed frameworks on CBA and resilience. The widely used CBA framework developed by CARE International¹⁰ and the climate resilience framework developed under the BRACED programme¹¹ are used. Reference will also be made to the key principles for locally led adaptation¹².

11.1. CBA framework - mapping of adaptation technologies and practices

The CBA framework is composed of four elements:

- Promotion of climate-resilient livelihoods strategies such as diversification of land use and incomes.
- Disaster Risk Reduction (DRR) strategies to reduce impacts of increasing climate-related natural disasters on vulnerable households.
- Strengthening capacity in a) community adaptive capacity and b) local civil society and governmental institutions to better support communities in adaptation efforts.
- Local and national level empowerment, advocacy and social mobilization to: a) address the underlying causes of vulnerability, such as poor governance, gender-based inequality over resource use, or limited access to basic services, and b) influence the policy and enabling environment.

Adaptation planning and action in all of the four components is informed by climate knowledge and risks - in addition to the range of information on local context and conditions, underlying causes of vulnerability and the enabling environment. Further description of what these elements look like at national to household level are presented in Annex.

⁷ Reid, H. (2016) Ecosystem- and community-based adaptation: learning from community-based natural resource management, *Climate and Development*, 8:1, 4-9, DOI: 10.1080/17565529.2015.1034233

⁸ Kirkby, P., Williams, C., & Huq, S. (2015). A brief overview of Community-Based Adaptation

⁹ See Community Based Adaptation on [WeAdapt](#) and [IIED](#).

¹⁰ [CBA Framework](#), CARE International

¹¹ Bahadur, A. V., Peters, K., Wilkinson, E., Pichon, F., Gray, K., Tanner, T. (2015). The 3As: Tracking Resilience Across BRACED. www.braced.org

¹² Soanes, .M, Bahadur, A., Shakya, C., Smith, B., Patel, S., Rumbaitis del Rio, C., Coger, T., Dinshaw, A., Patel, S., Huq, S., Musa M., Rahman, F., Gupta, S., Dolcemascolo, G. & Mann, T. (2021). Principles for locally led adaptation: A call to action. IIED, London

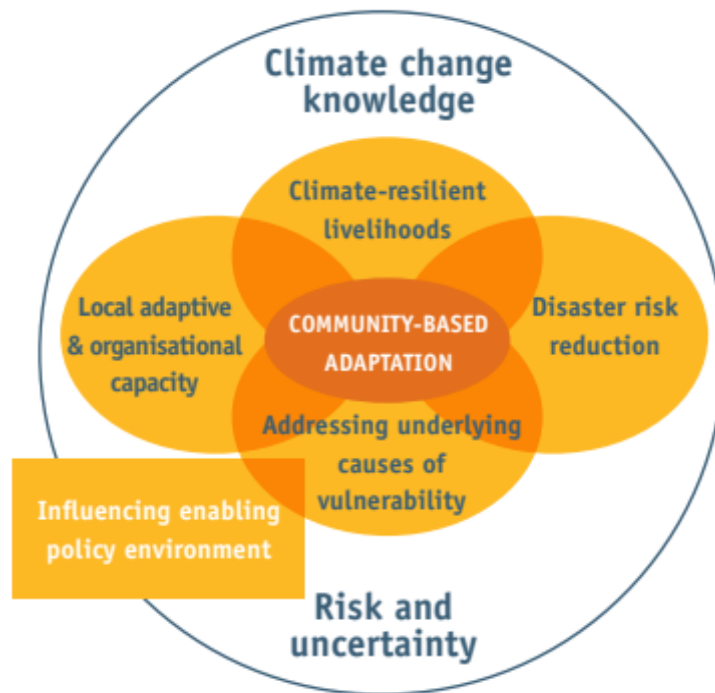


Figure 3: The CBA framework developed by CARE in 2009 and has since been revised through work by the Adaptation Learning Programme for Africa

The mapping will focus on the adaptation practices and indigenous practices used in the two counties, matched with the elements in the CBA framework. This is presented in the Table 4 below.

From the table, it is noted that most of the practices fall within climate resilient livelihoods. This demonstrates that actions are focussed on livelihoods where the impacts of climate change are most evident. Considering that the adaptation practices are developed and implemented based on observed challenges and opportunities, the focus on livelihoods shows that there is emphasis on responses to manage observed impacts of climate variability and change. However, for these practices to be resilient over the long term, there needs to be better use of information on future climate and the risk implications, together with the evolving risk context. As seen from the only entry under “Knowledge of climate and climate risks”, this is not well addressed by the adaptation practices. Building and using a robust understanding of climate risk and uncertainty is a critical part of locally-led adaptation. Use of future climate and risk information, including understanding and management of uncertainty, will enable flexible and forward looking decision making to adaptively manage livelihoods and resources. This will also help to ensure that what seem like resilient practices now are not feasible in the future or result in maladaptation when the context changes further in the future.

Some of the adaptation practices serve as climate resilient livelihoods as well as DRR actions. It speaks to the need to critical integrate climate risk reduction or management as part of livelihoods and development. An important piece that is missing from the DRR practices is the establishment and functional operation of early warning systems (EWS) for different kinds of climate risks. While the National Drought Management Authority (NDMA) has the Drought EWS operational in the two counties, it is not clear how the EW information is used in decision making and action on adaptation practices.

Local land use governance plays a role in enhancing local adaptive capacity, by empowering communities to have their own systems for managing grazing and water

resources in response to climate impacts. This element also relates to resilience capacities, as will be addressed in the next section. Engagement with local adaptive and organisational capacity needs to be strengthened.

In the end, defining “appropriate community based approaches for pastoral and agro-pastoral systems” requires engaging with all the various elements of the CBA framework holistically.

Table 4: Mapping of adaptation practices onto the CBA framework

<p style="text-align: center;">Climate resilient livelihoods</p> <ul style="list-style-type: none"> ● Livestock diversification ● Crop diversification ● Diversification of livelihoods ● Water harvesting ● Soil conservation ● Fodder production and pasture conservation ● Seed banks for fodder ● Kitchen gardens ● Rehabilitation of rangelands ● Flood-based Farming ● Small-scale irrigation ● Livestock behaviour to detect diseases ● Zai pits ● Migration with livestock 	<p style="text-align: center;">Disaster Risk Reduction</p> <ul style="list-style-type: none"> ● Diversification (crops, livestock, livelihoods) ● Fodder production and pasture conservation ● Flood-based Farming ● Fencing pastures using thorny bushes and tree branches to control soil erosion ● Herd splitting ● Traditional flood banks ● Zai pits
<p style="text-align: center;">Local adaptive and organisational capacity</p> <p>Local land use governance</p>	<p style="text-align: center;">Addressing underlying causes of vulnerability</p> <p style="text-align: center; color: red; font-size: 2em;">X</p>
<p style="text-align: center;">Knowledge of climate and climate risks</p> <p>Local climate forecasting</p>	<p style="text-align: center;">Enabling environment</p> <p style="text-align: center; color: red; font-size: 2em;">X</p>

11.2. Climate Resilience framework - mapping of adaptation technologies and practices

The essential quality of climate resilience is the capacity to withstand climate shocks and stresses and be able to rebuild and develop. This means not only the capacity to bring back livelihoods and development to the status before climate shocks and stresses, but quite importantly to have the capacity to continuously re-adjust to configurations that work better under a new and dynamic climate regime and broader context¹³. The 3AsT present the resilience capacities as:

- **Anticipatory capacity** is the ability of systems to anticipate, prepare for and take proactive action to avoid or reduce the potential impact of climate variability and extremes. E.g. using flood forecasts plus vulnerability data to anticipate people most likely to be affected by floods and trigger pre-planned pre-emptive

¹³ Smith (n.d.). Development and Application of a Resilience Framework to Climate Change Adaptation.

actions such as evacuation, cash transfers for people to purchase/ stock up on clean water before a flood etc.

- **Absorptive capacity** is about 'functional persistence' – that is, the ability of a system to buffer, bear and endure the impacts of climate extremes in the short term and avoid collapse (death, debilitation and destruction of livelihoods). E.g. weather-index based insurance, shock responsive social protection etc. If communities cannot endure the immediate aftermath of a climate disaster through anticipatory and absorptive capacities, they will be unable to sustain themselves, livelihoods and development or to take advantage of any new opportunities in the longer-term.
- **Adaptive capacity** is the ability of systems to adapt to multiple, short-term and long-term climate risks, and to learn and adjust after a disaster. It involves taking deliberate and planned decisions and actions to achieve a desired state even when conditions have changed or are about to change. E.g. using climate information (trends, patterns, forecasts, projections) to diversify livelihoods to manage different levels of drought risk, reinforcing agricultural value chains etc.
- **Transformative capacity** - is an approach to holistically and fundamentally build, reshape and enhance people's capacity to adapt to, anticipate and absorb shocks and stresses. E.g. policy changes to allow trans-boundary migration routes for livestock to manage drought; shifting power relations in a value chain by empowering smallholder farmers etc.

Mapping the adaptation practices against the resilience capacities shows that:

- Anticipatory, absorptive and adaptive capacities can be supported by use of local climate forecasting to take action
- Herd splitting and diversification of crops, livestock and livelihoods is a form of insurance that supports absorptive capacity
- Local land use governance supports transformative capacity

It is challenging to fit many of the other adaptation practices into these resilience capacities because it is not clear to what extent they have been designed with these capacities in mind, or that their outcomes enhance these capacities. This emphasises that for adaptation practices to support resilience, they need to have a stronger focus on sustaining benefits and outcomes over the long term and in a dynamically changing climate where uncertainty and unknowns are expanding.

12. Community training plan for use by the CBOs and NGOs

A general structure of the community training plan is presented below. This plan will be developed by the NGOs and CBOs during the training, to ensure they have a clear understanding of the training that needs to be done and for them to have ownership of the plans.

Name:

Institution/ Department:

County/ National level:

Contact person:

Email:

Community training plan overview

Objectives:	Rationale for the objectives:
1.	•

Actions

What are the necessary and expected actions to be taken so as to integrate climate risk management and resilience planning in your work and achieve your objective(s)? List and prioritize the actions in logical flow

No.	Step in the CAAPs approach	Action	Task	Timeframe	Person(s) responsible
1.	Launching the community adaptation action planning process				
2.	Context analysis and stakeholder mobilisation				
3.	Participatory analysis of climate change vulnerability and resilience capacity				
4.	Development of Community Adaptation Action Plans				

No.	Step in the CAAPs approach	Action	Task	Timeframe	Person(s) responsible
5.	Implementation and adaptive management of CAAPs				
6.	Integration of community adaptation priorities in local development planning				
7.	Strengthening systems and institutions for CBA				

13. Annex

13.1. Detailed description of the CBA framework

Table 5: The CBA framework. Source: [CARE](#)

	Climate resilient livelihoods	Disaster Risk Reduction	Local and organisational Capacity development	Addressing underlying causes of vulnerability
National Level	<ul style="list-style-type: none"> - Government is monitoring, analyzing and disseminating current and future climate information related to livelihoods - Climate change is integrated into relevant sectoral policies - Climate change is integrated into poverty reduction strategy and/or other development policies 	<ul style="list-style-type: none"> - Government is monitoring, analyzing and disseminating disaster risk information - Government is engaged in planning and implementing disaster risk management (prevention, preparedness, response and recovery) - Functional early warning systems in place - Government has capacity to respond to disasters 	<ul style="list-style-type: none"> - Government has capacity to monitor, analyze and disseminate information on current and future climate risks - Government has mandate to integrate climate change into policies - National policies are rolled out at regional and local levels - Resources are allocated for implementation of adaptation- related policies 	<ul style="list-style-type: none"> - Government recognizes specific vulnerability of women and marginalized groups to climate change - Policy and implementation is focused on reducing these vulnerabilities - Civil society is involved in planning and implementation of adaptation activities
Local Government/ Community level	<ul style="list-style-type: none"> - Local institutions have access to climate information - Local plans or policies support climate-resilient livelihoods - Local government and NGO extension workers understand climate risks and are promoting adaptation strategies 	<ul style="list-style-type: none"> - Local institutions have access to disaster risk information - Local disaster risk management plans being implemented - Functional early warning systems in place - Local government has capacity to respond to disasters 	<ul style="list-style-type: none"> - Local institutions have capacity to monitor, analyze and disseminate information on current and future climate risks - Local institutions have capacity and resources to plan and implement adaptation activities 	<ul style="list-style-type: none"> - Local planning processes are participatory - Women and marginalized groups have a voice in local planning processes - Local policies provide access to and control over critical livelihoods resources for all
Household/ Individual level	<ul style="list-style-type: none"> - People are generating and using climate information for planning - Households are employing climate resilient agricultural practices - Households have diversified livelihoods, including non-agricultural strategies - People are managing risk by planning for and investing in the future 	<ul style="list-style-type: none"> - Households have protected reserves of food and agricultural inputs - Households have secure shelter - Key assets are protected - People have access to early warnings for climate hazards - People have mobility to escape danger in the event of climate hazards 	<ul style="list-style-type: none"> - Social and economic safety nets are available to households - Financial services are available to households - People have knowledge and skills to employ adaptation strategies - People have access to seasonal forecasts and other climate information 	<ul style="list-style-type: none"> - Men and women are working together to address challenges - Households have control over critical livelihoods resources - Women and marginalized groups have equal access to information, skills and services - Women and marginalized groups have equal rights and access to critical livelihoods resources