

TRAINING MODULE

Climate Change Adaptation and Response in Somalia



PURPOSE AND LEARNING OUTCOMES

MODULE PURPOSE

This unit builds a shared and practical understanding of climate risk in Somalia. It grounds climate change in participants' lived experience and links hazards directly to humanitarian realities such as displacement, food insecurity, health risks, and protection concerns.

OVERALL LEARNING OUTCOMES

- Distinguish climate variability from climate change using simple language
- Identify major climate hazards affecting Somalia
- Explain the concept of risk as hazard + exposure + vulnerability
- Recognize which groups and systems are most affected
- Connect climate risks to conflict, displacement, health, and protection outcomes

UNIT 1: Climate Context and Risk foundations

Understanding climate risks in Somalia



INTRODUCTION

- The unit builds a shared and practical understanding of climate risk in Somalia.
- It grounds climate change in participants' lived experience and links hazards directly to humanitarian realities such as displacement, food insecurity
- The focus is not theory, but helping Local Humanitarian Partners recognize how climate risk already affects their daily work and programmes.
- The unit establishes the foundation for all subsequent units on assessment, planning, and adaptation.

KEY CONCEPTS

- **Climate variability:** Normal year-to-year changes in weather patterns. These include good and bad seasons that communities traditionally expect and plan for through coping practices such as migration or crop adjustment.
- **Climate change:** Long-term shifts that make droughts, floods, and heat more frequent and severe. These changes reduce predictability and overwhelm traditional coping mechanisms, increasing humanitarian needs.
- **Climate risk framework:** Risk = Hazard + Exposure + Vulnerability. Disasters occur not only because of hazards, but because people and systems are exposed and lack the capacity to cope or adapt.
- **Risk multiplier effect:** Climate stress increases existing fragility such as poverty, displacement, and conflict. It amplifies underlying vulnerabilities, turning manageable shocks into humanitarian crises.

Session 1. Climate as Lived Reality

- In this session, we will invite participants to share recent climate events affecting their communities and programmes. Participants begin with their own lived, field experience rather than theory.
- **Activity**
 - small groups discuss recent climate events in their areas
 - share impacts on livelihoods, health, and displacement
- **Output:** list of common climate shocks
- **Key Message:** Climate change is already happening. It is not a future problem.

Session 1. Climate as Lived Reality

Climate Trends in Somalia:

- Rising temperatures
- Unpredictable Gu and Deyr rains
- More intense drought cycles

Root Causes:

- Environmental degradation
- Weak infrastructure
- Poverty
- Governance gaps

Session 1. Climate as Lived Reality

What hazards affect your region most?

FOCUS	METHOD	OUTPUT
Livelihood impacts	Mapping	Livelihood risks list
Service disruptions (WASH/Health/Education)	Case study	Service gaps map
Protection & gender risks	Scenario analysis	High-risk groups profile
Displacement & conflict pressures	Group mapping	Displacement risks map
Shock cascade thinking	Flowchart	Impact pathway diagram

Session 2. Climate Variability vs Climate Change

This session explores the difference between normal seasonal fluctuations and long-term climate change, helping participants understand why shocks are becoming more frequent, severe, and unpredictable in Somalia

Activity:

- “Before vs Now” rainfall timeline
- compare parents’ generation with today

Output:

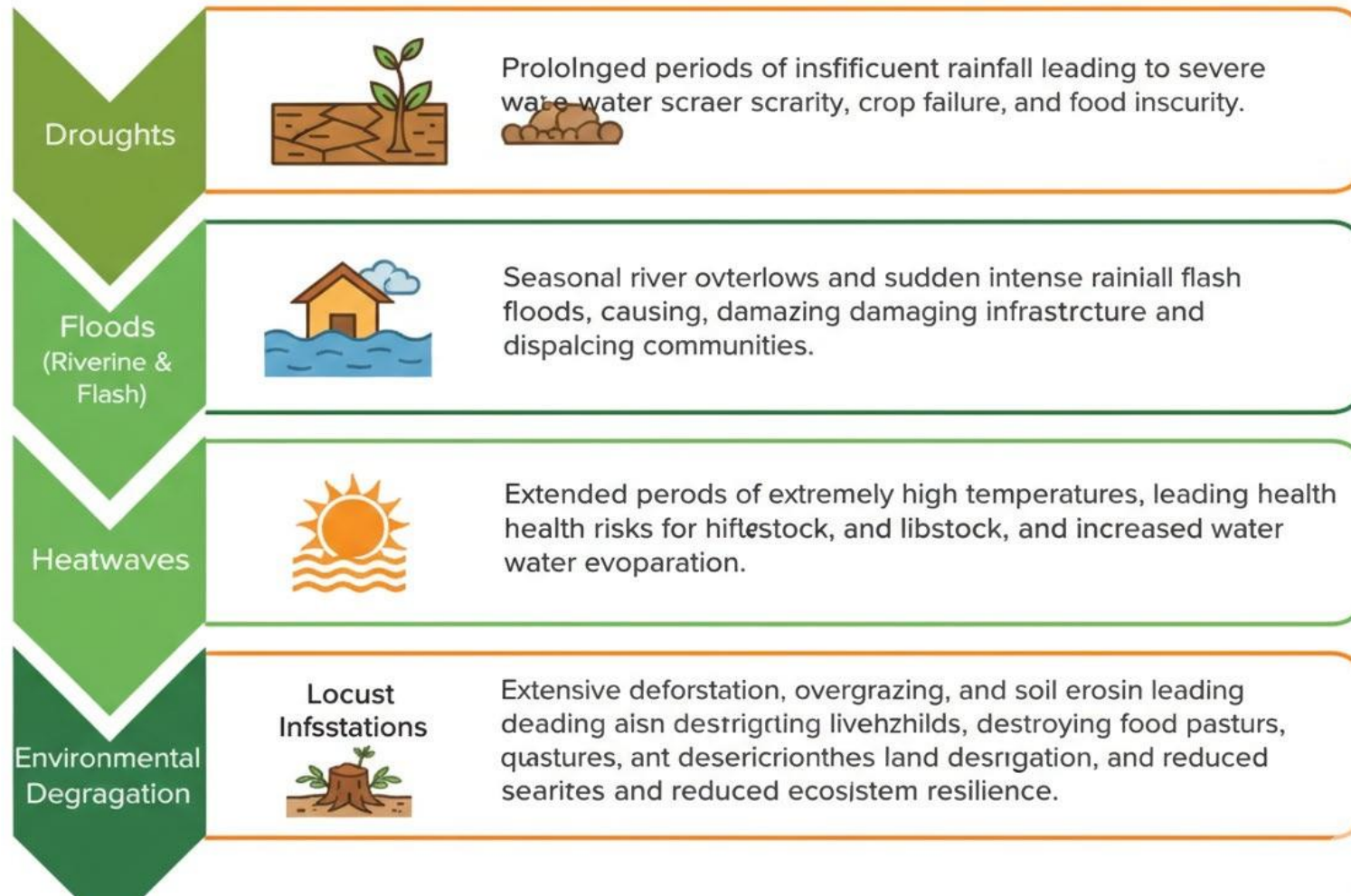
- comparison chart

Key Message:

- Weather changes naturally, but climate change makes extremes more frequent and less predictable.

Session 3. Major Climate Hazards in Somalia

Major Climate Hazards in Somalia



Session 3. Major Climate Hazards in Somalia

Topics :

- Droughts
 - Floods (riverine and flash)
 - heatwaves
 - storms
 - environmental degradation
- **Activity:** hazard mapping by region or district
 - **Output:** group hazard map
 - **Key Message:** Hazards differ by location. Planning must be context-specific.

Session 4. Understanding Risk (Framework Exercise)

This session introduces a simple risk framework to explain how disasters occur when hazards interact with exposed and vulnerable people, assets, and services.



Session 4. Understanding Risk (Framework Exercise)

Concept

- Risk = Hazard + Exposure + Vulnerability

Activity :

- identify one hazard
- identify who is exposed
- identify why they are vulnerable
- discuss possible consequences

Output:

- simple risk analysis table

Key Message:

- Hazards alone do not cause disasters. Risk increases when people and systems are exposed and vulnerable

Session 4. Understanding Risk (Framework Exercise)

Tools

- Hazard mapping
- Seasonal calendars
- Vulnerability ranking
- Community risk matrix



Session 4. Understanding Risk (Framework Exercise)

Simple risk matrix

Hazard	Likelihood	Impact	Priority

Exercise:

Develop a risk matrix for your district.

Session 4. Understanding Risk (Framework Exercise)

Risk assessment steps :




Session 5. Understanding Risk

Using Existing Humanitarian Assessments

- Climate risk analysis can be integrated into tools already used by LHPs, such as rapid needs assessments, seasonal calendars, and community consultations

Seasonal Calendar

	Month/ Season	Livelihood Activities	Climate Hazards	Disease Risks	Market/ Access Issues	Notes for Action	
							
A	Jan-Mar (Jilaal)	Dry	Livestock stress, water trucking	Drought, heat	Floods, flash floods	High food prices	Early support, water supply
B	Apr-Jun (Gu)		Planting, pasture recovery	Floods, flash floods	Malaria, AWD		
C	Jul-Sep (Hagaa)	Hot/dry	Migration, fodder search	Heatwave	Road disruption	Reduced income	Cash or livelihood support
		Planting/ harvest		Erratic rainfall	Reduced income		
D	Oct-Dec (Deyr)	Short rains	Planting/harvest	Erratic rainfall	Price volatility	Price volatility	Seed support, DRR

Session 5. Understanding Risk

Integrating Climate Risk into Existing Humanitarian Assessments

Assessment Tool	Add a Climate Lens	Example Output
Rapid Needs Assessment	Ask what climate event caused or worsened the crisis	Climate-sensitive needs priorities
Seasonal Calendar	Mark drought, flood, and heat periods	Seasonal risk timeline Hazard & risk map
Vulnerability Mapping	Identify hazard-prone settlements and exposed groups	Protection risk notes
Protection Risk Analysis	Link GBV, child protection, and safety risks to climate stress	Local adaptation ideas
Community Consultations	Ask communities about weather changes and coping strategies	Resilient livelihood options
Livelihoods/Market Assessments	Analyze how climate affects income and prices	Risk reduction actions
WASH/Infrastructure Checks	Assess resilience of water points, shelters, drainage	

Session 5. Impacts on People & Systems

Discussion areas:

- Food insecurity and livelihoods loss
- Displacement and urban pressure
- Disease outbreaks
- Protection risks and GBV
- Service disruption

Activity:

- Urban vs rural vs IDP comparison

Output:

- Prioritized vulnerable groups list

Key Message

- Climate impacts are unequal and affect marginalized groups most

Session 5. Impacts on People & Systems

KEY CONCEPTS :

- **Impact:** The immediate and longer-term effects on people, livelihoods, services, and systems, such as crop loss, illness, displacement, or service disruption.
- **Vulnerability:** Social, economic, or physical conditions that reduce people's ability to cope, including poverty, disability, weak shelter, limited services, or exclusion.

Session 5. Impacts on People & Systems

KEY CONCEPTS :

- **System stress:** Pressure on water systems, health facilities, schools, supply chains, or markets that limits access to essential services during and after shocks
- **Risk multiplier:** Climate hazards intensify existing problems, turning manageable challenges into crises by increasing inequality, resource competition, and humanitarian needs.

Session 5. Impacts on People & Systems

Impacts on Livelihoods:

- Livestock death
- Crop failure
- Water scarcity

Impacts on Social Systems:

- Increased displacement
- Conflict over grazing land
- School dropouts

Reflection:

- How does drought affect women differently than men?

Session 5. Impacts on People & Systems

Humanitarian Consequences:

- Climate shocks increase:
- Food insecurity
- Malnutrition
- Gender-based risks
- Disease outbreaks
- Note: Climate change is not just environmental, it is humanitarian.

Session 5. Impacts on People & Systems

Session	Focus	Method	Output
2.1	Livelihood impacts	Mapping	Livelihood risks list
2.2	Service disruptions (WASH/Health/Education)	Case study	Service gaps map
2.3	Protection & gender risks	Scenario analysis	High-risk groups profile
2.4	Displacement & conflict pressures	Group mapping	Displacement risks map
2.5	Shock cascade thinking	Flowchart	Impact pathway diagram







Session 6. Groups at Higher Risk

This session explores why certain groups face higher risks, including women, children, persons with disabilities, minorities, IDPs, and pastoralists, and highlights the importance of inclusive and protection-sensitive programming.

- Identify who needs targeted support and Guide participants to analyze unequal impacts:

Session 6. Groups at Higher Risk

Groups often at high risk:

	Groups	Description	Risk Factors
	Women and female-headed households	Women and female-headed households	<ul style="list-style-type: none">• Greater vulnerability due to caregiving responsibilities, lack of access to reso-
	Children and elderly	Children and elderly	<ul style="list-style-type: none">• Higher dependence, increased susceptibility to health impacts
	Persons with disabilities	Persons with disabilities	<ul style="list-style-type: none">• Reduced mobility, limited access to services and support
	Minority or marginalized groups	Minority or marginalized groups	<ul style="list-style-type: none">• Displacement, precarious housing, lack of services
	IDPs and informal settlements	IDPs and informal settlements	<ul style="list-style-type: none">• Displacement, precarious housing, lack of services
	Pastoralists in remote areas	Pastoralists in remote areas 	<ul style="list-style-type: none">• Isolation, dependence on weather and water resources

Session 6. Groups at Higher Risk

Focus groups:

- Women and female-headed households
- children and elderly
- persons with disabilities
- minority groups
- IDPs and informal settlements
- remote pastoralists

Activity: vulnerability matrix

Output: vulnerability profile

Key Message:

- Inclusive programming reduces harm and improves resilience

Session 7: Urban Climate Vulnerability

- Correct the common assumption that climate change is only a rural issue.
- **Cities to Highlight:** Mogadishu, Baidoa, Kismayo, Hargeisa
- **Urban Climate Risks:**
 - Flash flooding due to poor drainage
 - Extreme heat in dense settlements
 - Fire risks in IDP camps
 - Waste accumulation and disease outbreaks
 - Insecure land tenure

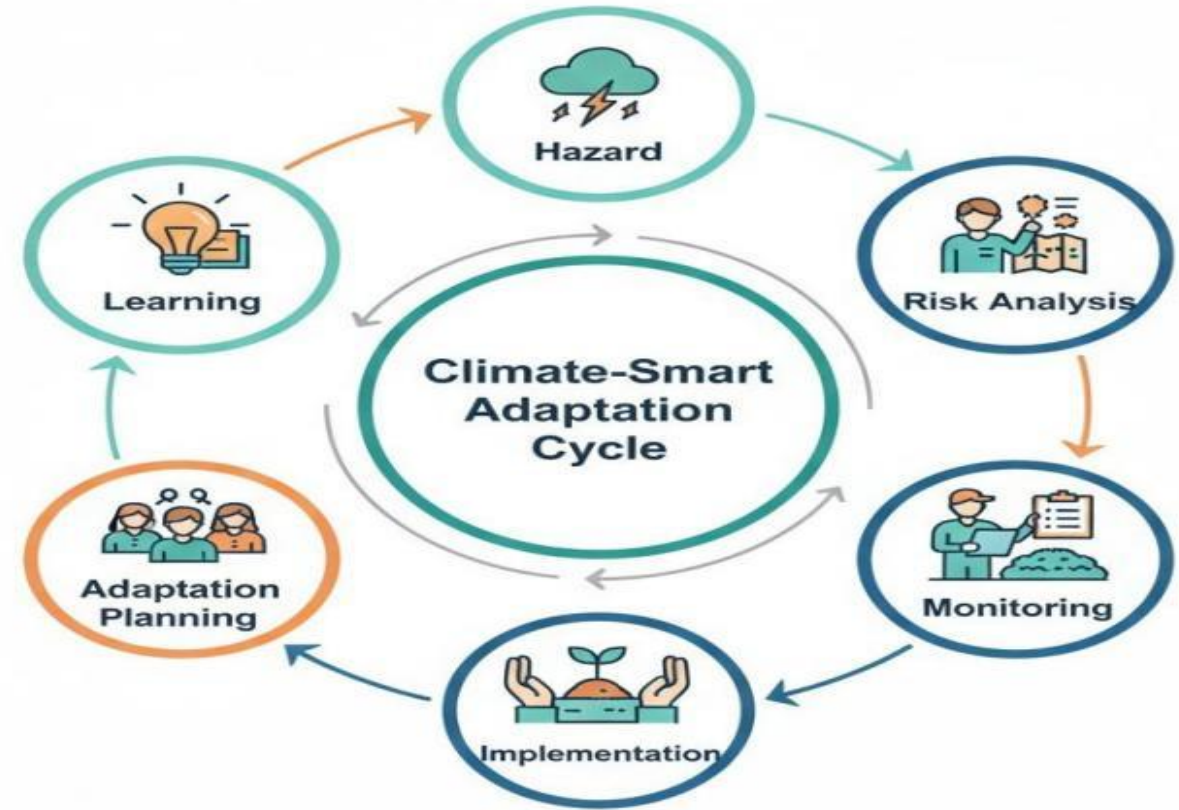
Session 7: Urban Climate Vulnerability

- **Trainer Activity:**
- Ask participants working in urban areas: What climate risks do IDPs face that rural communities do not?

Session 8: Adaptation & Resilience Solutions

Purpose:

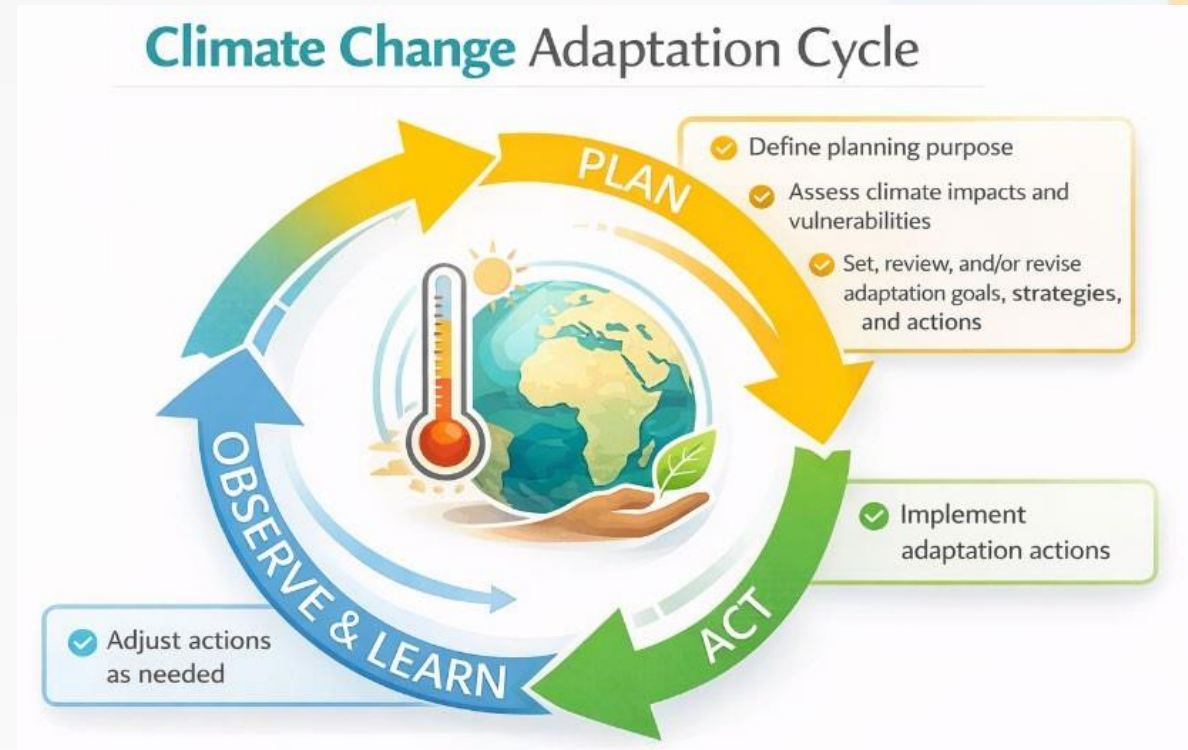
- This unit moves participants from risk analysis to practical solutions. It focuses on identifying feasible, low-cost, and locally appropriate adaptation actions that reduce climate risks across sectors.
- Participants explore how to strengthen livelihoods, protect services, and support community coping capacity using measures that can be implemented within existing humanitarian programmes.



Session 8: Adaptation & Resilience Solutions

Objectives:

- Explain what adaptation means in humanitarian programming
- Identify practical sector-specific adaptation options
- Match risks with appropriate solutions
- Assess the feasibility and prioritisation of actions
- Develop simple sector adaptation plans



Session 8: Adaptation & Resilience Solutions

Key Concepts

- **Adaptation:** Adjusting activities, systems, and behaviours to reduce harm from climate risks.
- **Resilience:** The ability of people and systems to absorb shocks, recover, and continue functioning
- **Feasibility:** Selecting solutions that are affordable, acceptable, and realistic within local capacity.
- **No-regret actions:** Measures that provide benefits even without a disaster, such as improved water storage or savings groups.
- **Local knowledge:** Community practices and experience that strengthen coping and recovery.

Session 8: Adaptation & Resilience Solutions

Ecosystem-Based Solutions

Nature-Based Approaches

- Area enclosures
- Farmer Managed Natural Regeneration (FMNR)
- Rangeland management
- **Benefits:**
 - Reduced erosion
 - Improved pasture
 - Increased resilience

Session 8: Adaptation & Resilience Solutions

Social Resilience

- Resilience also means:
- Strong community institutions
- Inclusive decision-making
- Women’s participation
- Youth engagement

Session	Focus	Method	Output
4.1	Sector impacts review	Group work	Sector risks
4.2	Adaptation options brainstorming	Workshop	Option list
4.3	Feasibility & prioritization	Scoring	Selected actions
4.4	Sector action planning	Planning tool	Draft sector plan
4.5	Peer review	Presentation	Improved plan

Session 9: Integration into Programming



Session 9: Integration into Programming

Purpose

- This session focuses on mainstreaming climate considerations into everyday humanitarian programming. Rather than creating separate climate projects.
- participants learn how to integrate climate risks and adaptation measures into existing sector activities, proposals, budgets, and implementation plans.

Session 9: Integration into Programming

Objectives of the session :

- Integrate climate risks into project design and planning
- Screen activities for potential climate vulnerabilities
- Apply gender, protection, and do no harm lenses
- Adjust sector interventions to be climate-smart
- Use simple checklists to strengthen proposals and implementation

Session 9: Integration into Programming

Key Concepts

- **Mainstreaming:** Embedding climate considerations into normal programming, not as separate activities.
- **Climate screening:** Checking whether a project may be affected by or worsen climate risks.
- **Do No Harm:** Ensuring interventions do not increase tensions, exclusion, or vulnerability.
- **Inclusion:** Designing programmes that consider women, persons with disabilities, minorities, and displaced groups.
- **Climate-smart programming:** Activities that both deliver services and reduce future risks.

Session 9: Integration into Programming

Key Session's and Activity Plan

Session	Focus	Method	Output
5.1	Climate screening basics	Checklist exercise	Screening notes
5.2	Project redesign	Group work	Revised design
5.3	Gender & safeguarding lens	Case analysis	Inclusion actions Risk mitigation ideas
5.4	Do No Harm & conflict sensitivity	Discussion	
5.5	Integration planning	Planning	Integration checklist

Session 9: Integration into Programming

Proposal Example

Instead of: “Provide water.”

Write: “Provide climate-resilient water systems.”

Climate-Sensitive Project Design

Checklist:

- Does project reduce vulnerability
- Does it increase local capacity
- Is it conflict-sensitive?
- Are women included?

Session 10: Preparedness & Early Action



Session 10: Preparedness & Early Action

Purpose

- This session focuses on acting before disasters escalate into crises.
- Participants learn how preparedness, early warning, and anticipatory action reduce losses, protect lives and livelihoods, and lower response costs.
- Rather than reacting after shocks occur, Local Humanitarian Partners are guided to plan simple, realistic measures that can be activated when risks increase.
- The emphasis is on practical readiness at community and organizational levels.

Session 10: Preparedness & Early Action

Objectives:

- Explain the value of preparedness and early action
- Identify early warning signs and triggers
- Develop simple contingency plans
- Define roles and responsibilities before crises
- Engage communities in preparedness actions
- Reduce response delays and losses

Session 10: Preparedness & Early Action

Key concepts:

- Preparedness: actions taken before a shock to reduce impact and improve response.
- Early warning: information that signals increased risk, such as rainfall forecasts, river levels, disease alerts, or market changes.
- Early action: steps taken immediately when risk thresholds are reached, not after disaster occurs.
- Contingency planning: pre-agreed actions, roles, and resources for rapid response.
- Anticipatory action: acting based on forecasts to prevent or minimize harm.

Session 10: Preparedness & Early Action

Key Session's and Activity Plan

Session	Focus	Method	Output
6.1	Early warning basics	Discussion	Trigger list
6.2	Trigger–action matrix	Tool exercise	Action plan
6.3	Contingency planning	Group planning	Contingency draft
6.4	Roles & coordination	Role mapping	Responsibility chart
6.5	Simulation drill	Scenario	Lessons learned

Session 10: Preparedness & Early Action

Early Warning Systems:

- Rainfall monitoring
- Community alert systems
- Government bulletins
- Note: Preparedness saves lives and reduces costs.

Anticipatory Action: Act before disaster peaks.

Examples:

- Pre-position animal feed
- Cash transfers before drought worsens
- Repair water points early

Note: Early action is more effective than emergency response.

Session 11: Humanitarian-Development-Peace (HDP) Nexus

Purpose:

This unit introduces the Humanitarian–Development–Peace (HDP) Nexus as a practical way of working across relief, resilience, and social stability in Somalia’s fragile and climate-affected context.

In fragile contexts like Somalia:

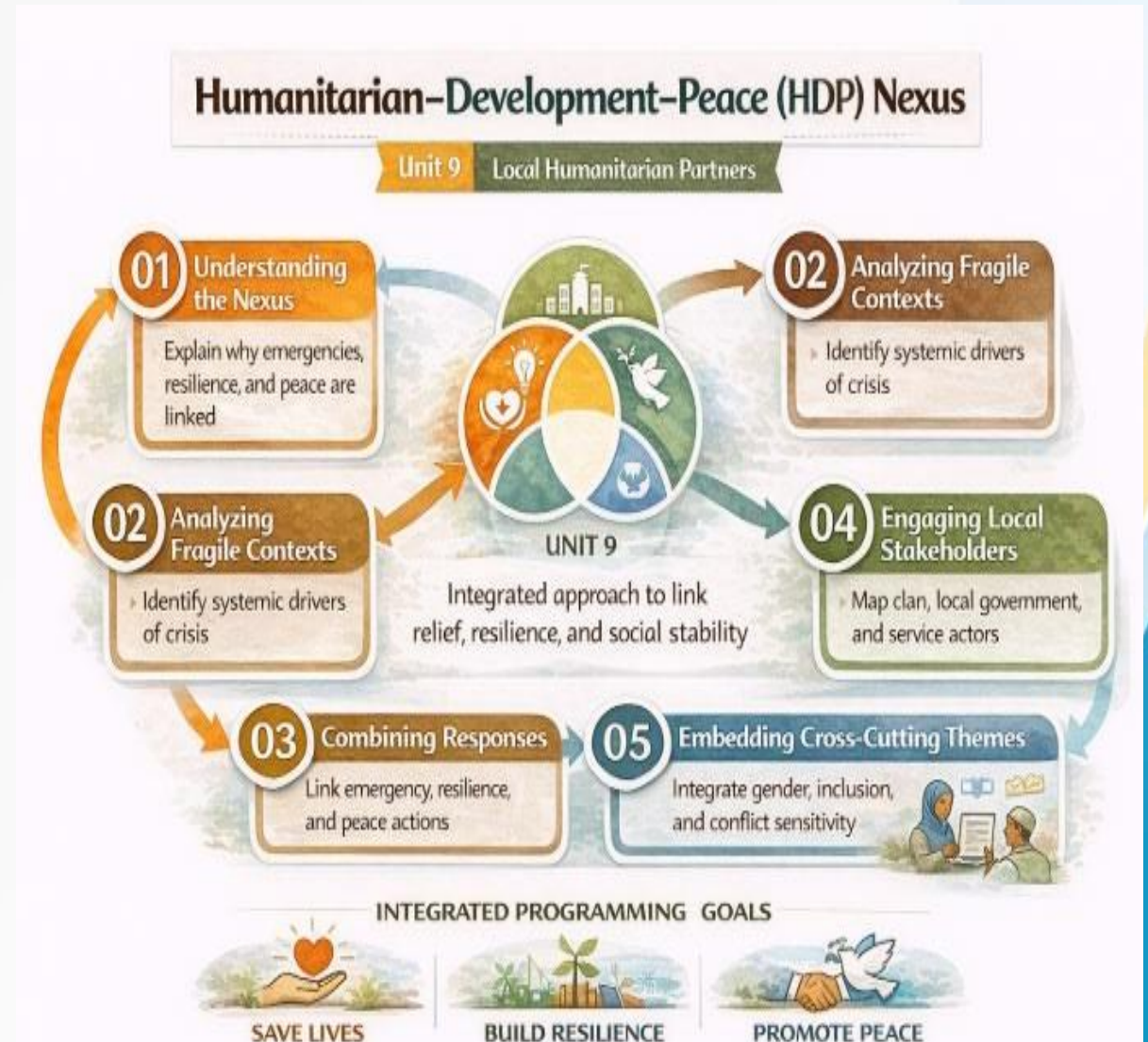
- Humanitarian response addresses immediate needs
- Development strengthens systems
- Peacebuilding reduces conflict drivers

Note: Climate programming must connect all three.

Session 11: Humanitarian-Development-Peace (HDP) Nexus

OBJECTIVES:

- ❖ Explain the HDP Nexus in simple operational terms
- ❖ Apply integrated thinking in fragile Somali settings
- ❖ Connect emergency response, climate adaptation, and peace outcomes
- ❖ Engage clans, local governance, and service systems constructively
- ❖ Integrate conflict sensitivity, inclusion, and localization into programmes



Session 11: Humanitarian-Development-Peace (HDP) Nexus

Key Concepts

- Humanitarian action: immediate, life-saving support during crises
- Development action: strengthening systems and services for long-term resilience
- Peace contribution: reducing tensions, improving trust, and preventing conflict
- Nexus approach: designing programmes that address all three together
- Conflict sensitivity: avoiding harm and reducing tensions through inclusive planning

Session 11: Humanitarian-Development-Peace (HDP) Nexus

Session	Topic	Purpose	Method	Time	Output
9.1	Understanding the HDP Nexus	Build shared understanding of humanitarian, development, and peace linkages	Mini lecture + discussion	30 min	Nexus concept clarified
9.2	Why the Nexus Matters in Somalia	Analyze recurring shocks, fragility, and systemic drivers of crisis	Problem tree + plenary	45 min	Root causes list
9.3	Linking Response, Adaptation & Peace	Connect emergency, resilience, and peace actions in one programme	Case study + group design	60 min	Integrated response map
9.4	Engaging Clans, Governance & Services	Identify safe and inclusive local engagement strategies	Stakeholder mapping	45 min	Stakeholder map
9.5	Gender, Protection & Conflict Sensitivity	Apply safeguarding and inclusion lenses to programming	Checklist review + group work	45 min	Risk mitigation actions
9.6	Nexus Simulation Exercise	Practice designing an integrated nexus programme	Group simulation + presentations	60 min	Draft nexus programme concept
9.7	Reflection & Wrap-up	Consolidate learning and link to next unit	Plenary reflection	15 min	Key insights & commitments

Session 12: Cascade & Action Planning

Purpose:

This final unit prepares participants to translate learning into action within their own organisations and communities.

It focuses on cascading knowledge, planning follow-up training, and integrating climate adaptation into ongoing programmes



Session 12: Cascade & Action Planning

Objectives:

- Explain the cascade training approach
- Plan and deliver short climate adaptation sessions for their teams
- Adapt materials for local contexts and languages
- Develop realistic organisational action plans
- Assign responsibilities and timelines
- Commit to the immediate next steps

Session 12: Cascade & Action Planning

Key Concepts

- Cascade training: Knowledge passed from trained participants to colleagues and communities.
- Localisation: Local actors leading planning, delivery, and decision-making.
- Ownership: Responsibility for continuing actions beyond the training.
- Action planning: Turning ideas into clear tasks with timelines and accountability.
- Practical replication: Short, simple sessions that can be delivered quickly in the field.

Session 12: Cascade & Action Planning

Action Planning Template

Focus	Method	Output
Cascade strategy	Discussion	Training approach
Localization planning	Group work	Context adaptations
Micro-teaching	Practice	Trainer feedback
Organizational action plan	Planning	LHP action plan
Commitments & close	Reflection	Next steps list

Exercise: Each participant develops a cascade plan.

Session 12: Cascade & Action Planning

Conclusion & Commitments

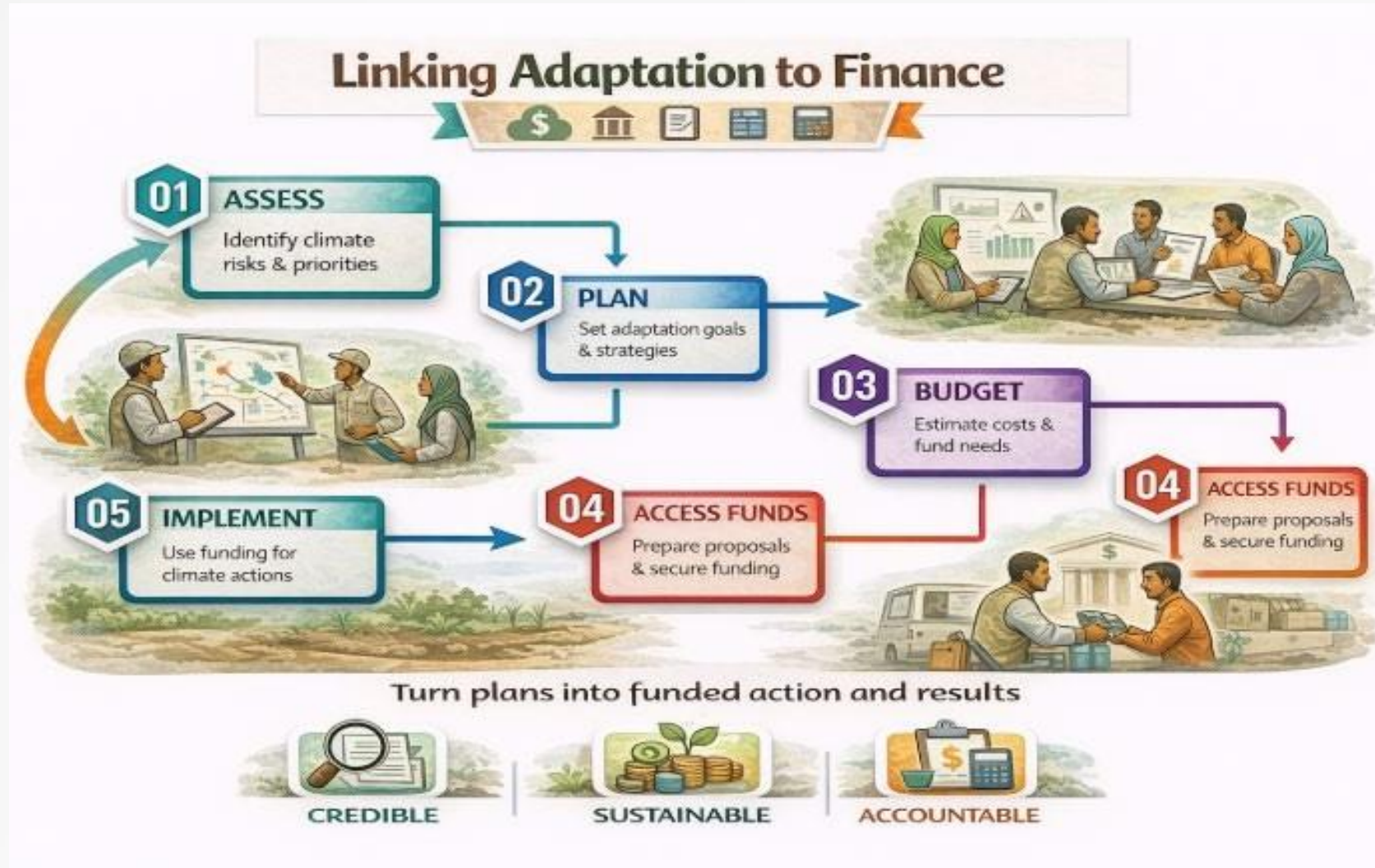
Key Messages

- Climate change is a risk multiplier
- Adaptation is possible
- Local knowledge matters
- Integration is essential
- Trainers are change agents

Personal Commitment

Write one action you will implement within 3 months

Session 13: Monitoring, Learning & Finance



Session 13: Monitoring, Learning & Finance

Purpose:

This unit focuses on ensuring that climate adaptation efforts are tracked, improved, and sustained over time. Participants learn how to monitor results, measure resilience outcomes, capture lessons, and link adaptation actions to available funding opportunities

Session 13: Monitoring, Learning & Finance

Objectives:

- Define simple indicators to track adaptation progress
- Monitor risks, actions, and outcomes
- Apply learning and reflection to improve programming
- Document good practices and lessons learned
- Integrate climate into routine meal systems
- Understand basic pathways to climate and resilience financing

Session 13: Monitoring, Learning & Finance

Key Concepts:

- Monitoring: Regular tracking of activities and results to ensure progress.
- Learning: Using experience and evidence to improve future actions.
- Accountability: Ensuring programmes respond to community needs and feedback.
- Resilience indicators: Signs that communities are better able to cope and recover.
- Climate finance: Funding that supports adaptation, preparedness, and resilience actions.

Session 13: Monitoring, Learning & Finance

Indicators:

- Tree survival rate
- Livestock mortality reduction
- Water availability duration

Learning:

- After-action reviews
- Community feedback sessions

Session 13: Monitoring, Learning & Finance

Climate Finance:

Sources may include:

- Donor adaptation funds
- NGO climate windows
- Community savings groups

Key Principle: Transparent resource management builds trust.

Session 13: Monitoring, Learning & Finance

Action plan

Session	Focus	Method	Output
7.1	Indicators selection	Group work	Indicator list
7.2	Tracking tools	Practice	Monitoring sheet
7.3	Reflection & learning loops	Discussion	Key lessons
7.4	Accountability & feedback	Case exercise	Feedback plan
7.5	Linking actions to budgets	Planning	Resource plan