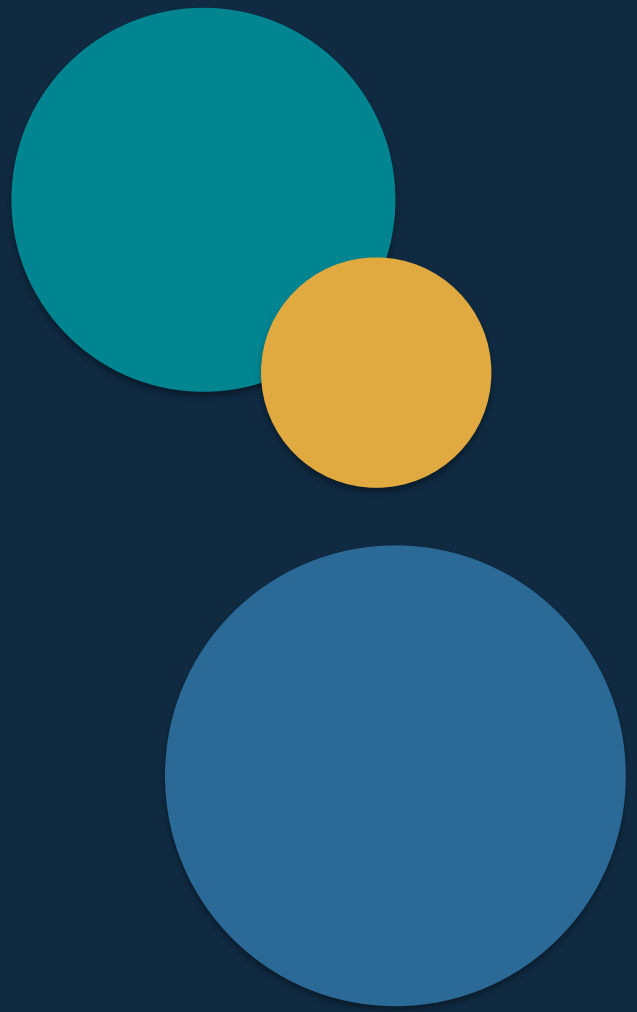
WATER AT THE HEART OF CLIMATE ACTION

Ethiopia | TFA 4: Anticipatory Action & Locally Led Adaptation



From risk information → community action → resilient water systems

Monthly Water Actions Call | 28 October 2026 | Abraham & Desmond

Public

Ethiopia WHCA: the story in one picture

TFA 4 is where the wider WHCA system becomes action at community level

1

RISK KNOWLEDGE

• risk mapping • local priorities

2

FORECASTS

Hydro-met monitoring • tailored forecasts

3

WARNING

Accessible messages • trusted channels. EVCA . Early warning full chain. Last Mile . Indigenous Knowledge integration into scientific forecast

4

ACTION

Anticipatory action • LLA • water investments. Co design Workshop. SBC P Cocreation

WHAT IS DISTINCTIVE

Ethiopia is deliberately connecting technical forecasting with community interpretation, anticipatory action and longer-term water resilience.

WHY IT MATTERS FOR OTHER COUNTRIES

The learning is not a single activity—it is the linkage between pillars, local knowledge, governance and investment.

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What has moved forward

A portfolio of water actions, systems strengthening and locally led adaptation

2
Target woredas

4
TFA pathways linked

1
Integrated action chain

∞
Learning loops

ASSESSMENTS

EVCA and validation; digitized water mapping; hydrogeological and geophysical surveys; water-point assessments; surveys and field-based planning.

WATER ACTIONS

Solarization feasibility and implementation; rehabilitation/upgrading of non-functional water points; roof-water harvesting; water construction design; soil and water conservation.

GOVERNANCE & CAPACITY

EWC strengthening; tailored forecast delivery; warning harmonization; PGI/CEA/PSEA; disaster law; media engagement; local planning and preparedness.

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From consultation to co-design

The Duule co-design process helped shift the question from “what can we deliver?” to “what solution fits the local risk?”

WHAT WE BROUGHT TOGETHER

ERCS Somali Branch & branches
Water and government actors
Universities and research institutions
Humanitarian/development partners
Community perspectives

WHAT THE PROCESS TESTED

Local risk priorities
Water access & reliability
Forecast usability
Existing coping practices
Feasibility and maintenance
Institutional roles

WHAT IT CHANGED

More locally relevant design
Stronger ownership
Better sequencing of technical work
Clearer links between forecast and action
Space for indigenous knowledge

Best practice: co-design is most valuable when it changes the technical decision—not simply when it validates a decision already made.

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Indigenous knowledge + scientific forecasting

A practical pathway to make forecasts more locally meaningful

LOCAL KNOWLEDGE

Historical rainfall and drought signals
Water-source behaviour
Local hazard indicators
Community interpretation
Trusted decision pathways

SCIENTIFIC SYSTEM

Hydro-meteorological observations
Forecasts and thresholds
Risk analysis
Multi-hazard information
Early warning products

INTEGRATED ACTION

Co-interpreted forecast
Locally understandable message
Agreed trigger/action
Community preparedness
Feedback to improve forecasts

Learning: indigenous knowledge should not replace scientific forecasts; it can improve relevance, interpretation, trust and actionability when the two are deliberately brought together.

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Harshin: solarizing water systems as locally led adaptation

Moving from climate risk assessment to a practical, maintainable water solution

THE RISK

Consecutive drought
Heat stress
Pressure on reliable water access
High dependence on vulnerable water points

THE RESPONSE

Joint field mission
Solarization feasibility assessment
Hydrogeological/geophysical evidence
Local maintenance considerations
Link to community priorities

THE ADAPTATION VALUE

More resilient water access
Lower operational burden
Potential for local management
Water infrastructure informed by climate risk
Foundation for longer-term water governance

Key message: infrastructure becomes LLA when communities and local institutions influence the choice, design, management and sustainability of the solution.

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Geophysical + hydrogeological assessment: making water investments smarter

TEM technology strengthens the evidence base for groundwater decisions

WHY ASSESS?

Understand subsurface conditions
Reduce uncertainty before drilling/rehabilitation
Inform borehole siting and design
Support sustainable groundwater use

WHAT WE ARE LEARNING

Geophysical evidence complements hydrogeological assessment
Technical evidence needs to be translated into practical investment choices
Assessment quality matters for both infrastructure and sustainability

WHAT OTHER COUNTRIES CAN TAKE

Invest in assessment before construction
Link groundwater data to climate risk
Document assumptions and uncertainty
Use evidence to prioritise scarce investment

The shift: from “build a water point” → “understand the resource, risk and users, then invest in the right solution.”

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IWRM in practice: water actions are not standalone infrastructure

The Ethiopia approach is increasingly connecting water resources, risk, ecosystems, users and governance

WATER RESOURCE

Groundwater
Water availability
Hydrogeology
Water quality

WATER SERVICES

Rehabilitation
Solarization
Rainwater harvesting
Water-point functionality

RISK & CLIMATE

Drought
Flood risk
Forecasts
Anticipatory action

GOVERNANCE

EWC
Communities
Woreda actors
O&M, WASH co's

THE EMERGING LESSON

A resilient water system needs more than infrastructure: it needs risk information, appropriate technology, governance, local ownership, maintenance capacity and feedback from users.

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Inter-pillar linkages: the Ethiopia learning

The pillars work as a value chain, not as separate workstreams

TFA 1 → TFA 2	**Risk knowledge informs where and what to monitor**	Risk mapping → monitoring priorities
TFA 2 → TFA 3	**Forecasts become usable warnings**	Observations → tailored messages
TFA 3 → TFA 4	**Warnings trigger preparedness and action**	Warning → trigger → anticipatory action
TFA 4 → TFA 1	**Action creates learning for future governance**	After-action review → improved planning
TFA 5 → ALL	**CEA/PGI keeps the system trusted and inclusive**	Feedback → better relevance & ownership

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What is still difficult

Progress is real, but several constraints still shape delivery

CAPACITY

Branch and local capacity remains uneven
Technical awareness varies
Sustained coaching is needed
Implementation depends on multiple actors

DATA

Data quality, availability and accessibility
Need stronger links between datasets
Forecasts must remain locally understandable
Evidence needs to reach decisions

CONSECUTIVE DROUGHT

Harshin faces persistent drought pressure
Water systems must withstand climate stress
Investments need realistic O&M arrangements
Adaptation needs to be sustained beyond projects

Management challenge: keep technical ambition high while designing solutions that local institutions and communities can actually operate and sustain.

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Five lessons we would share with other countries

Practical learning from Ethiopia's TFA 4 journey

01 **CO-DESIGN CHANGES DESIGN**

Bring communities, government, universities and technical actors together before locking the solution.

02 **LOCAL KNOWLEDGE ADDS VALUE**

Use indigenous knowledge to improve forecast interpretation, trust and actionability.

03 **ASSESS BEFORE INVESTING**

Geophysical/hydrogeological evidence reduces uncertainty and improves water investment decisions.

04 **INFRASTRUCTURE NEEDS GOVERNANCE**

Solarization or rehabilitation is sustainable only when O&M, ownership and accountability are addressed.

05 **PILLARS MUST LEARN TOGETHER**

Risk information → forecasts → warnings → action → feedback should operate as one continuous learning loop.

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Where we go next

Consolidate the learning and turn it into stronger systems, not more isolated activities

1 | STRENGTHEN

Refine forecast thresholds and locally tailored messaging
Improve data flows
Continue branch capacity strengthening
Institutionalise feedback loops

2 | SCALE

Use evidence from Harshin and other target areas to inform future water investments
Scale approaches that communities can maintain
Connect technical evidence with financing

3 | LEARN

Track outcomes, not only activities
Document indigenous knowledge integration
Capture after-action learning
Share practical tools across countries

The ambition: a country system where the best available risk information leads to locally owned decisions and resilient water action.

ETHIOPIAN RED CROSS W@HCA PROJECT ACTIVITIES

SURVEYS

- . EVCA and validation
- Digitized Water mapping
- Water points Co- designing
- CEA PGI AND SBC STUDY
- Interoperability on existing forecasts system
- Developing a multi-year climate strategy.
- Under IFRC W@HCA disaster law study and validation

LOCALIZATION OF EAP

- Two woreda EAP mechanism document
- EWC reestablishment and strengthening
- Tailored forecast delivery to the two target woreda by EMI
- Early warning message harmonization
- Drought activation In harshen woreda

Soil and water conservation Activities

- Harshin field based planning and targeting completed (Haromaya Agreed to engage)

Trainings and workshops

- Training on Protection, Gender, and Inclusion (PGI), Community Engagement and Accountability (CEA), and Prevention of Sexual Exploitation and Abuse (PSEA
- Disaster Law Training On existing DRM laws and red cross auxiliary role
- Medea consultative meeting for all National and regional medias in collaboration with Telecom and Ethiopian Broadcasting authority

Water construction

- Co- designing with Universities and research institutions.
- joint Field Mission on Harshen Borehole Solarization Feasibility
- Un Functional ester points maintenance and upgrading
- Roof water harvesting instalment
- Geophysical and hydrology survey
- Harshin Borehole solarization
- Abakoro water construction design completed (Budget solicitation proceeded)

Key Challenge

1. Cosecutive Drought In harshin
2. Branch and local capacity and awareness
3. Data quality ,availability and accessibility

Innovation and Improvement

1. Comprehensive capacity building trainings
3. Woreda specific tailored forecast delivery
4. Indigenous Knowledge integration in EW Messaging

The Netherlands Red Cross

IFRC

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THE ETHIOPIA LEARNING

“The value of collaboration is measured by what becomes possible for communities because we connect risk knowledge, forecasts, local knowledge and water action.”

From information → to action → to resilience

Abraham & Desmond | WHCA Ethiopia | 28 October 2026

Public