



GCF Sub-Regional dialogue

Enhancing the ability to address the risks of water scarcity in areas most affected by climate change and water shortage in Syria

16 December 2025, Muscat

The project at a glance

USD 27.7m

Total project cost

USD 25m

GCF grant requested

5 years

Implementation period

220,000

Direct beneficiaries

1,500,000

Indirect beneficiaries

SAP Category C

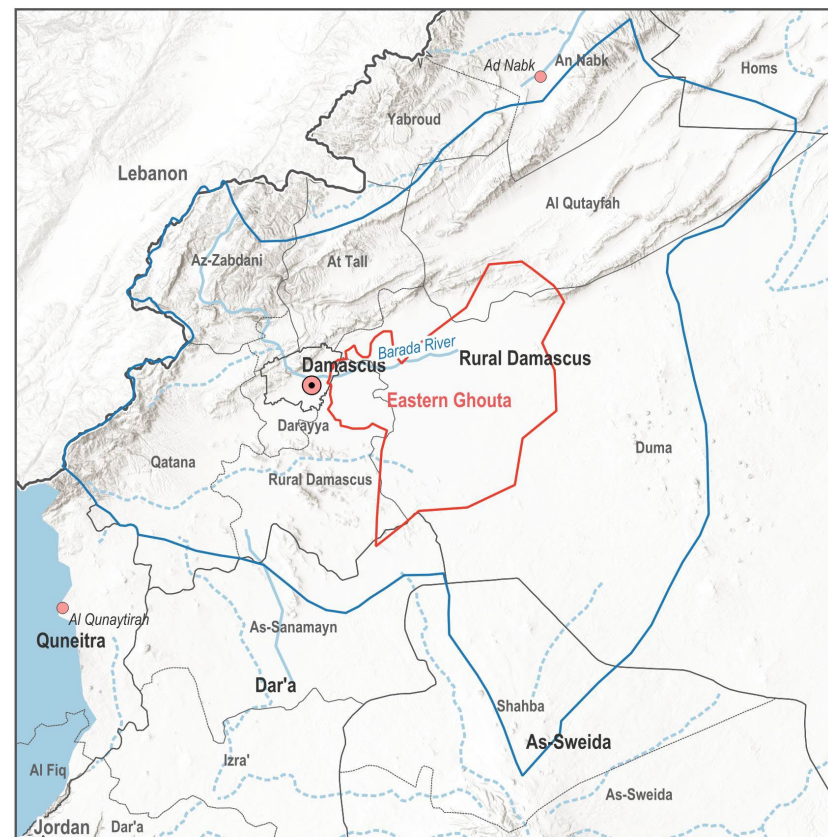
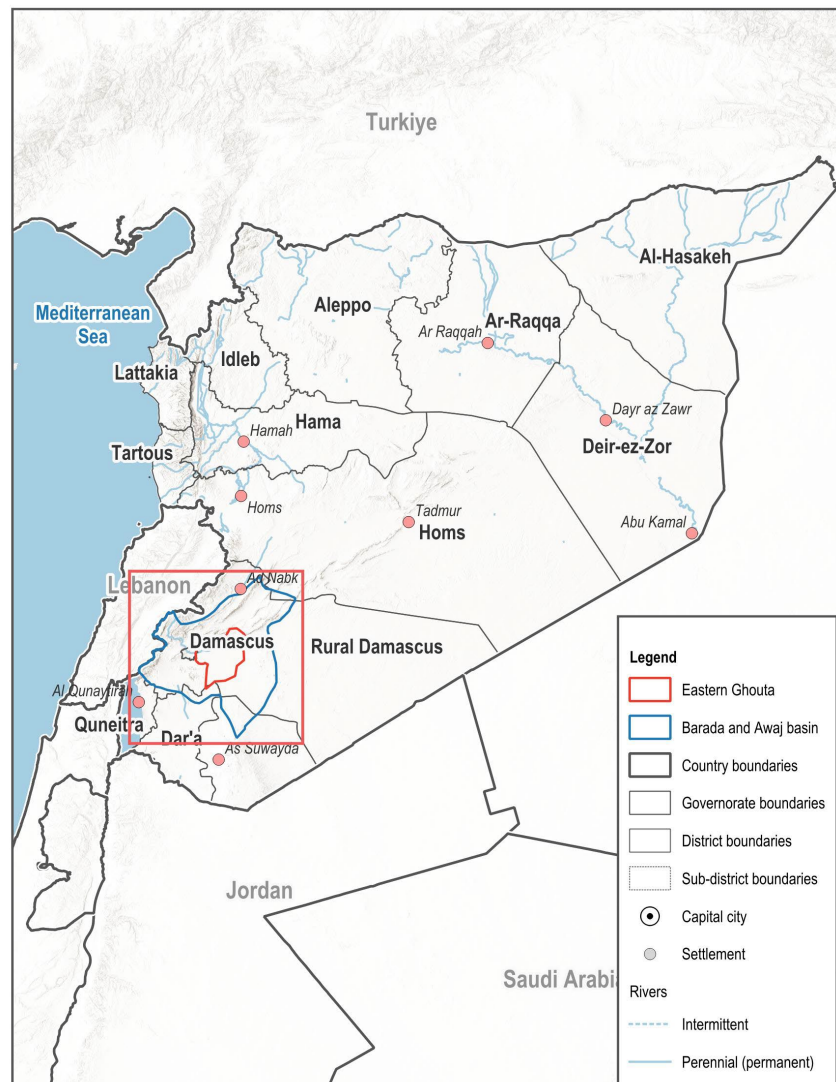
GCF process / ESS

Accredited Entity: Acted **Executing Entities:** Ministry of Local Administration and Environment
Acted Syria

Result area: Adaptation: health, food & water security

Strategic plan alignment: T1 (country planning/pipelines), T6 (resilient infrastructure), T9 (locally-led action)

Barada and Awaj river basin, Eastern Ghouta, Rural Damascus Governorate



Climate projections

AVERAGE CONDITIONS

Mean annual surface temperature anomaly

SSP 2.45

B&A Basin: +1.7°C
Syria: +1.8°C

SSP 5.85

B&A Basin: +2.3°C
Syria: +2.4°C

Mean annual precipitation anomaly

B&A Basin: -4.1%
Syria: -4.1%

B&A Basin: -4.9%
Syria: -3.9%

EXTREME CONDITIONS

Anomaly in number of hot days (>40°C)

B&A Basin: +11
Syria: +21

B&A Basin: +21
Syria: +30

Anomaly in max number of consecutive dry days

B&A Basin: +3
Syria: +4

B&A Basin: +5
Syria: +4

Barriers to adaptation



Institutional

- Fragmented climate-water governance following years of conflict
- Gaps in national capacity for climate-informed water monitoring, modelling, and decision-making
- Limitations of government entities to access and leverage climate finance



Social

- Low public awareness and limited behavioural adoption of climate-resilient water practices
- Lack of equal opportunities for men and women in participating in climate change adaptation techniques



Financial and economic

- Constrained public budgets for climate-resilient water and agricultural investments
- Limited affordability of climate-smart technologies for vulnerable households and farmers
- Limited private-sector engagement and low appetite for investment in adaptation

Proposed project

Climate informed abstraction limits, management plans

Coordinated water allocation and demand-management strategies

Component 2 Climate-resilient water infrastructure and services

- Climate-proofed water infrastructure
- Efficiency ('smart metering') leak detection, greywater reuse, and strengthened O&M
- Establish a leak detection and response system

Component 1 Climate-informed water governance and decision-making

- Strengthen groundwater monitoring systems and develop groundwater flow model
- Establish water governance (WUA) for integrated water management planning.
- Support for access to climate finance

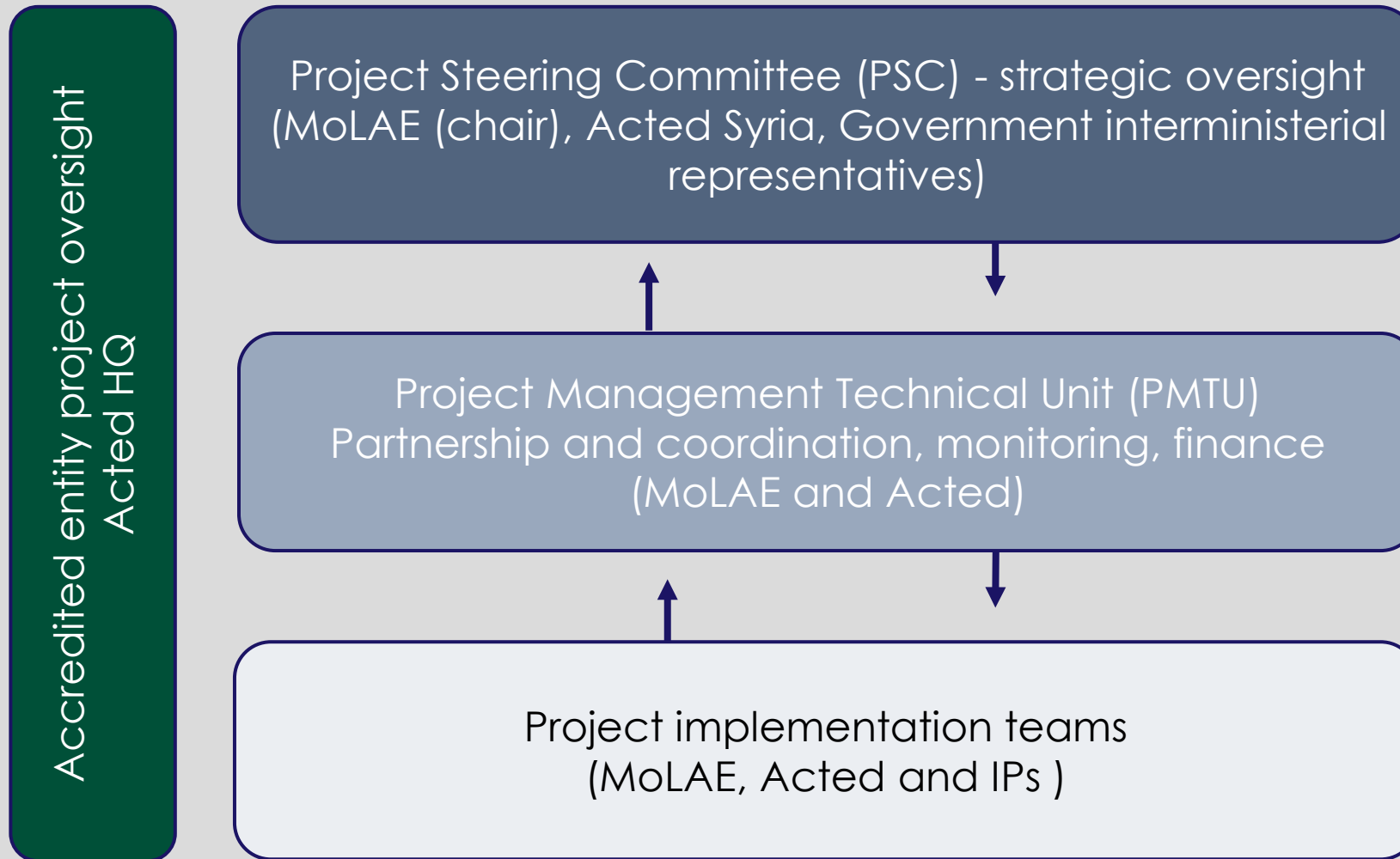
Component 3 Climate-resilient agriculture and ecosystems

- Aligns agricultural practices with future water availability by integrating farmers into planning
- Scales climate-smart agriculture
- EbA recharges ground water.
- Revolving fund w/Agriculture Cooperative Bank

Well field surveys to optimize groundwater abstraction and inform maintenance

Agricultural demand scenarios and farmer-led innovations

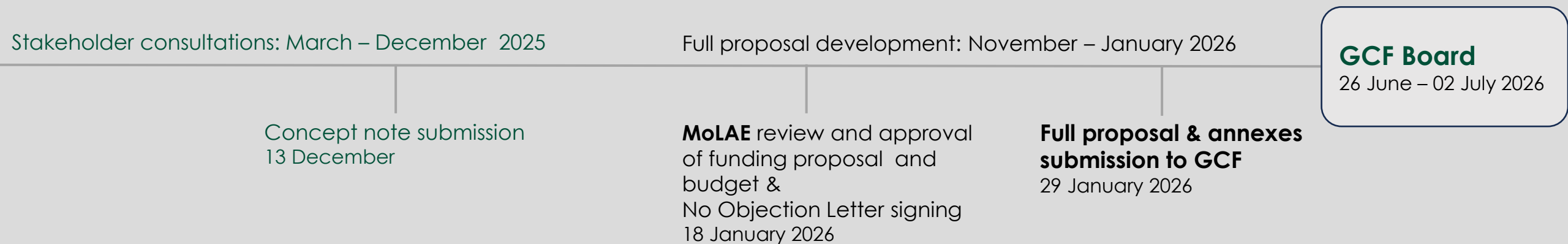
Institutional arrangements



Alignment with GCF investment criteria

Impact potential	Enhancing climate-resilient water security for vulnerable people while strengthening institutions and generating scalable models for integrated water management across Syria.
Paradigm shift potential	Enhancing water conservation, water efficiency, and water re-use. Establishes the pre-conditions for blended finance.
Sustainable development	Institutionalised water management systems, gender and economic co-benefits
Needs of the recipient	High climate vulnerability, acute water scarcity, limited fiscal capacity.
Country ownership	Aligned with the Nationally Determined Contributions (NDC), National Adaptation Action Plan (NAAP), Syria's Water policy. Project co-designed by MoLAE, MoE, MoA and Acted
Efficiency and effectiveness	Reduction of non-revenue water, improved cost – recovery systems , increased cost-efficiency of agricultural production

Timeline



Thankyou

Component 1 - Strengthening institutional capacities for climate-resilient water management at community, basin and national levels



Output 1.1 Integrated data systems for measuring, monitoring, modelling groundwater resources in Barada and Awaj water basin

Output 1.2 Multi-stakeholder capacity strengthening for climate – informed water management

Output 1.3 Knowledge sharing and financing for sustained water resilience – national level

Understanding the water supply

Understanding the water demand and climate impact

Inclusive governance and localised planning

Wider community engagement

Recommendations for local and national uptake

Wider professional and investment community engagement

Sustained climate financing

Activity 1.1.1 Strengthen groundwater monitoring systems

Activity 1.1.2 Develop a groundwater flow model

Activity 1.2.1 Strengthen local water governance structures

Activity 1.2.2 Build local water management accountability systems

Activity 1.2.3 Provide recommendations to the local water use regulatory framework

Activity 1.3.1 Multi-stakeholder forums for knowledge exchange and coordination of investment

Activity 1.3.2. Strengthening NDA's capacity to catalyse climate financing

Hydrogeological desk study
Geophysical assessment
Modernizing the existing groundwater monitoring network
Water quality mapping and improving the capacity of the water laboratories
Increased capacity to collect precipitation and evaporation data
Data collection harmonization
Strengthening of the national database for improved storage and data analysis
Strengthening capacity of the community and basin level institutions to sustain the system through hands-on training and needed equipment

Land use analysis
Socio-economic water survey
Update of the database of boreholes for drinking water and agricultural use
Modelling for ex ante analysis of demand and climate impact
Capacity strengthening through training and maintenance

Strengthening of the inclusive Water User Associations(WUA) including roles and responsibilities, equipment
Training of technical departments and WUA on utilization of groundwater monitoring and climate data
Creation of community owned digital platforms for water information sharing
Strengthening of a local integrated water management plan
Creation of inclusive water scarcity response scenarios

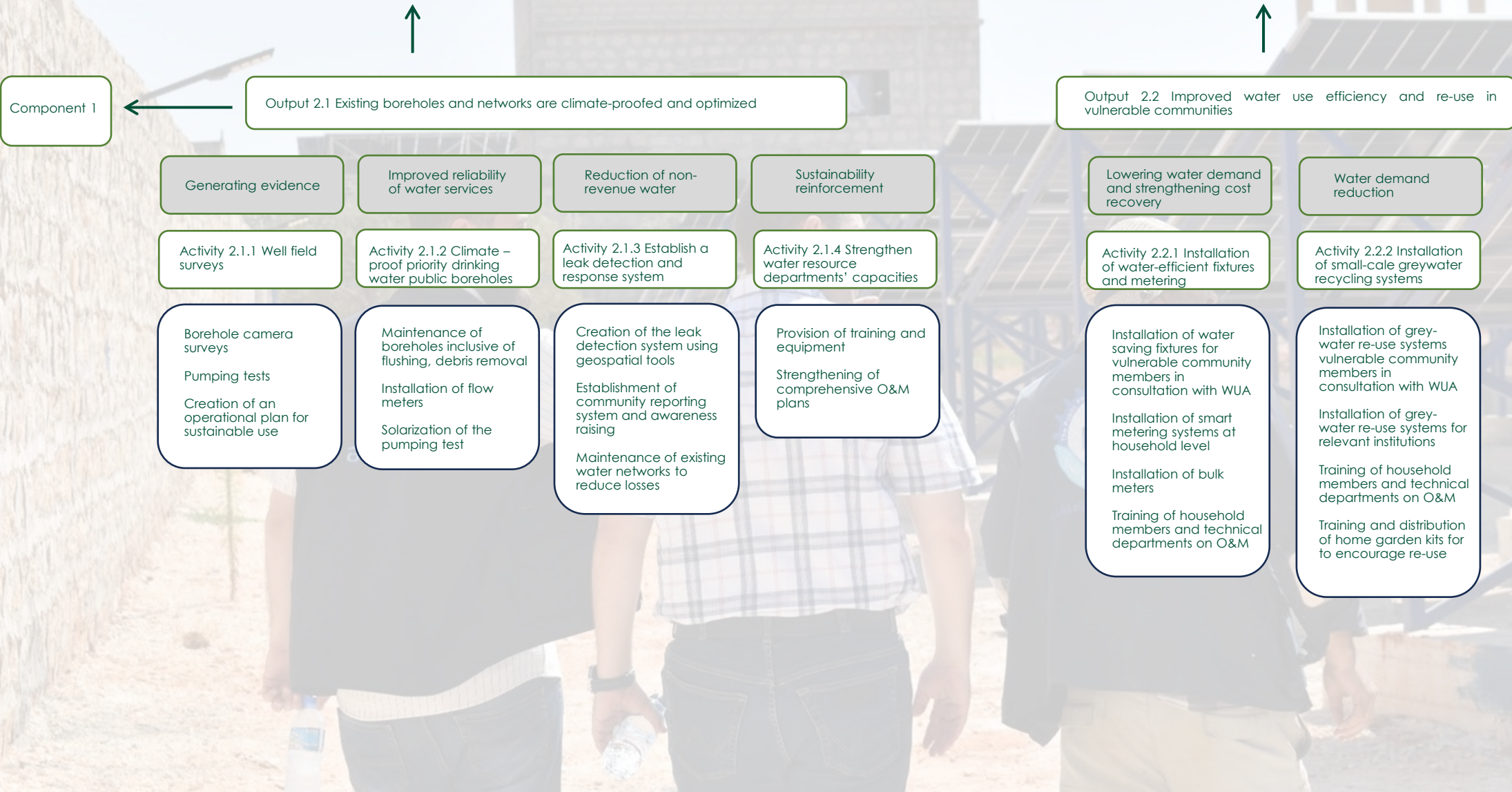
Engage local civil society to promote consultation of vulnerable groups – youth, women, minorities, elderly
Enable grievance mechanisms feeding directly to the project management
Enable participatory monitoring and evaluation of the outcomes of the project

Consultative process to provide recommendation on local water regulatory framework, taking into consideration climate impact and needs of varied groups

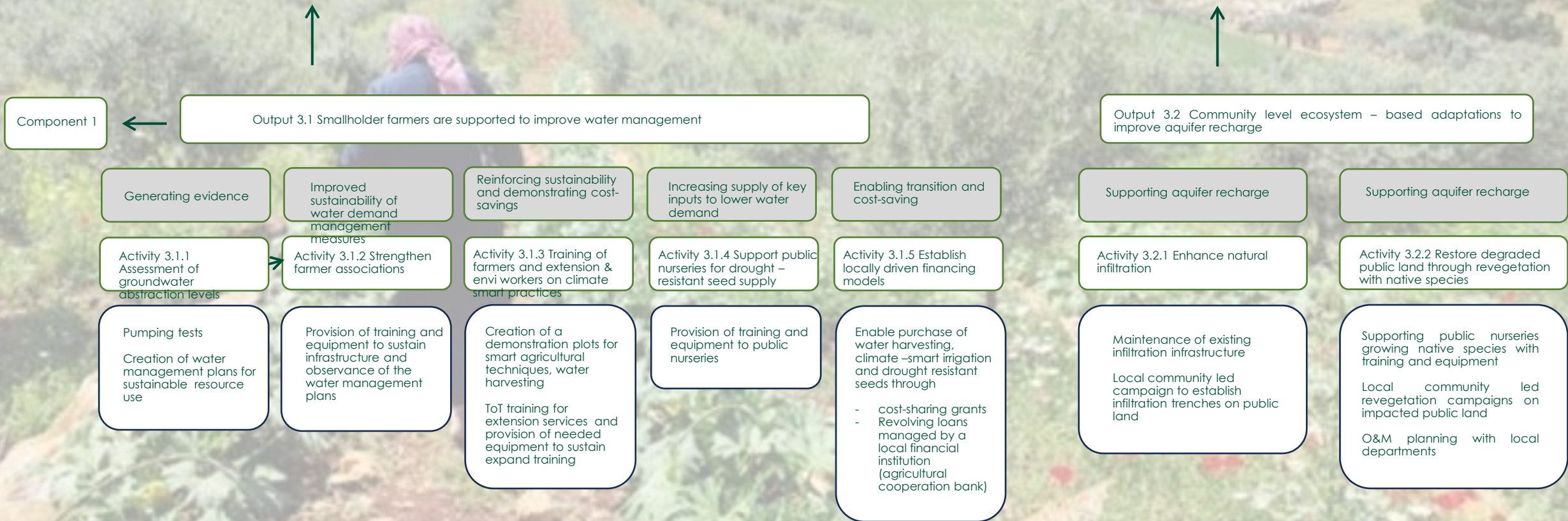
Events and conferences related to water, climate, environment gathering public and private sector, service providers, farming community, civil society actors and humanitarian and development actors
Participatory development of lessons learned and best practice document
Development of grey-green infrastructure business case

Strengthening NDA capacity through project pipeline development
Training and institutional support to sustain engagement with the GCF and other climate finance mechanisms

Component 2 - Improving community **water infrastructure** and **re-use systems** in Eastern Ghouta



Component 3 - Supporting climate –resilient agriculture in Eastern Ghouta



Theory of change

IF vulnerable, water-scarce communities in Syria are empowered to lead locally driven climate adaptation using climate and groundwater data, inclusive governance, and sustainable water and agricultural practices, **AND** are supported by resilient infrastructure and institutions, **THEN** water security will improve, sustain agricultural productivity and reduce climate vulnerability, **BECAUSE** locally led, data-informed decisions enable efficient, equitable, and anticipatory water and agricultural management.

Component 1

Strengthening **institutional capacities** for climate-resilient water management at community, basin and national levels

- Improved evidence
- Enhanced sustainable and climate resilient planning
- Inclusive governance
- Increased capacity to obtain climate financing

Component 2

Improving community **water infrastructure** and re-use systems (A&B Basin)

- More reliable water supply
- Decreased non-revenue water
- Improved cost-recovery
- Normalizing water re-use

Component 3

Supporting **climate-resilient agriculture** (A&B Basin)

- Lower demand for water for irrigation
- Improved cost-efficiency of agricultural production