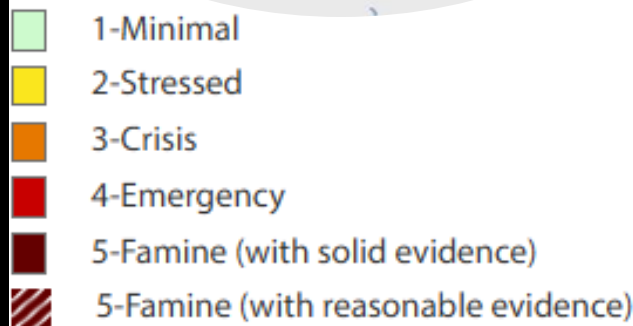
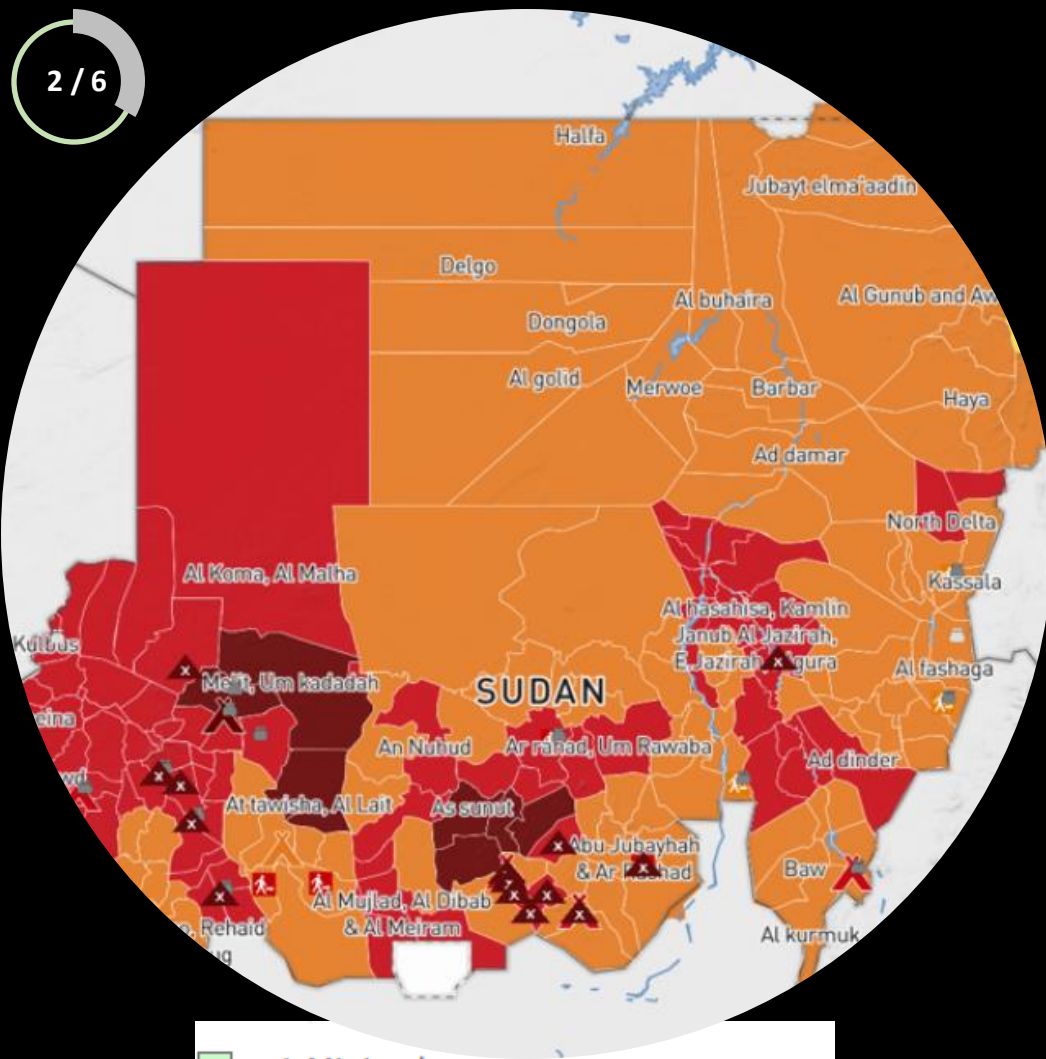


Water harvesting in Sudan

Assessing technologies, capacities and pathways for sustainable implementation in a changing climate.



Funded by the European Union

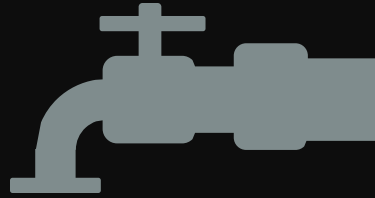


Conflict Impact

- **Ongoing civil war since April 2023** between Sudanese Armed Forces (SAF) and Rapid Support Forces (RSF)
- **Over 11 million internally displaced people**, including many children, exacerbating the world's largest displacement crisis
- **Devastating effects on daily life:** Food insecurity affecting 25 million people, damaged water infrastructure, and economic contraction
- **Rural areas hit hardest:** Disrupted agriculture, water scarcity from droughts/floods, and environmental degradation



Project Relevance



Addresses critical water scarcity in conflict-vulnerable Sudan, aligning with national priorities (NDC 2022 & NAP 2015)

01

Enhances efficiency of technologies like Hafirs and dams to improve agriculture, food security, and climate resilience

02

Welcomed by government:

- Requested by Ministry of Environment
- Supports Sudan Water Sector Strategy 2021–2031

03

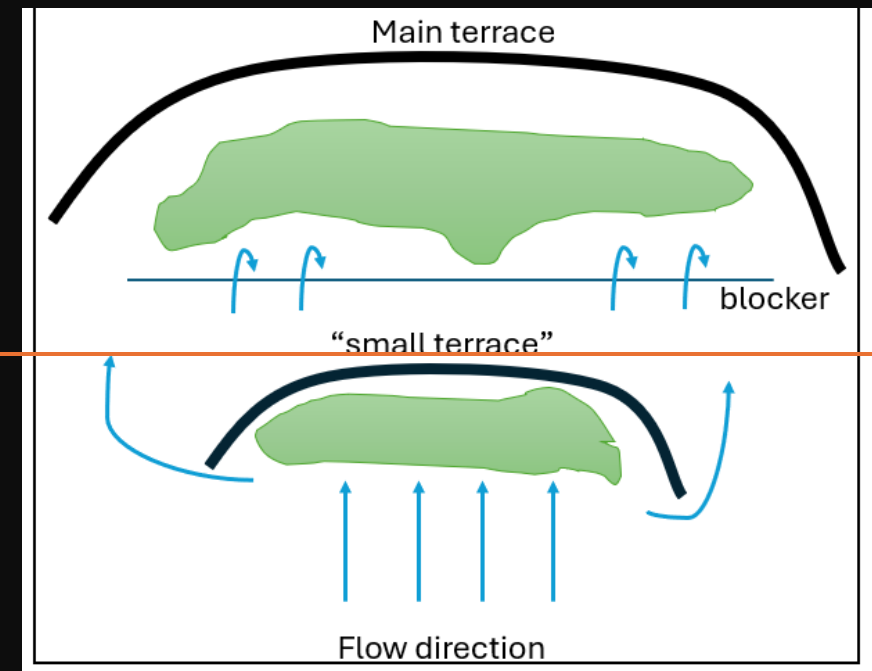
Involves local farmers, IDPs, and women for sustainable, gender-responsive solutions

04

Project staff:
 33% (5/15) – **women**
 80% (12/15) – **local**
 No staff from gender and climate technology roster

Pilot Definition

Pilot definition	<ul style="list-style-type: none">• Assess existing technologies (e.g., Terraces, dams); propose innovations• Test one feasible system
Stakeholder consultation	<ul style="list-style-type: none">• Engaged ministries, universities (e.g., University of Khartoum, Nyala), via WhatsApp groups and working teams.
What is piloted	<ul style="list-style-type: none">• Enhanced Terrace designs using GIS/RS for localization• Community-based management systems following FAO guidelines• 3400m of terraces on 14 land plots
Expected results	<ul style="list-style-type: none">• Improved water storage efficiency• Improved yields and water availability for livestock• Reduced erosion



Monitoring and Evaluation

- **Key Indicators:**

- Water availability (volume stored/used)
- Agricultural production (crop yields)
- Land restoration (reduced erosion)

- **Focus Groups:**

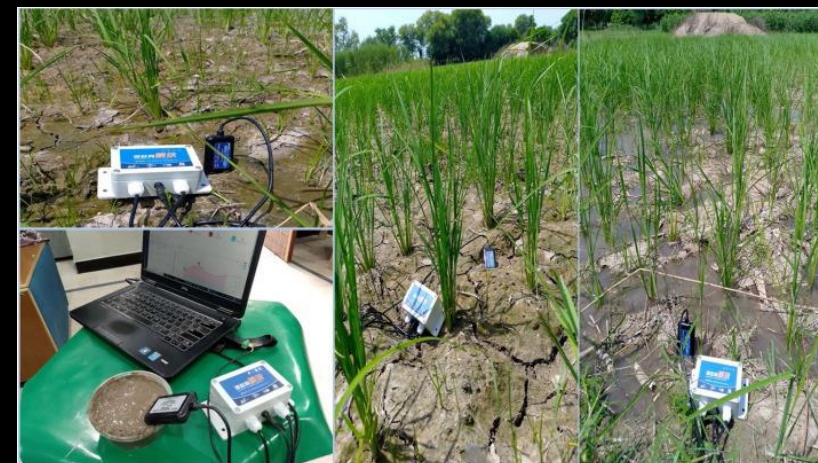
- Youth (training participation)
- Women (economic empowerment)
- Rural populations (food security scores)

- **Methods:**

- CTCN Response Plan metrics
- Pre/post surveys
- Short/medium/long-term impact tracking

- **Demonstrating Impact:**

- Baseline vs. post-pilot data on reduced vulnerability
- Gender-responsive outcomes like women's health improvements

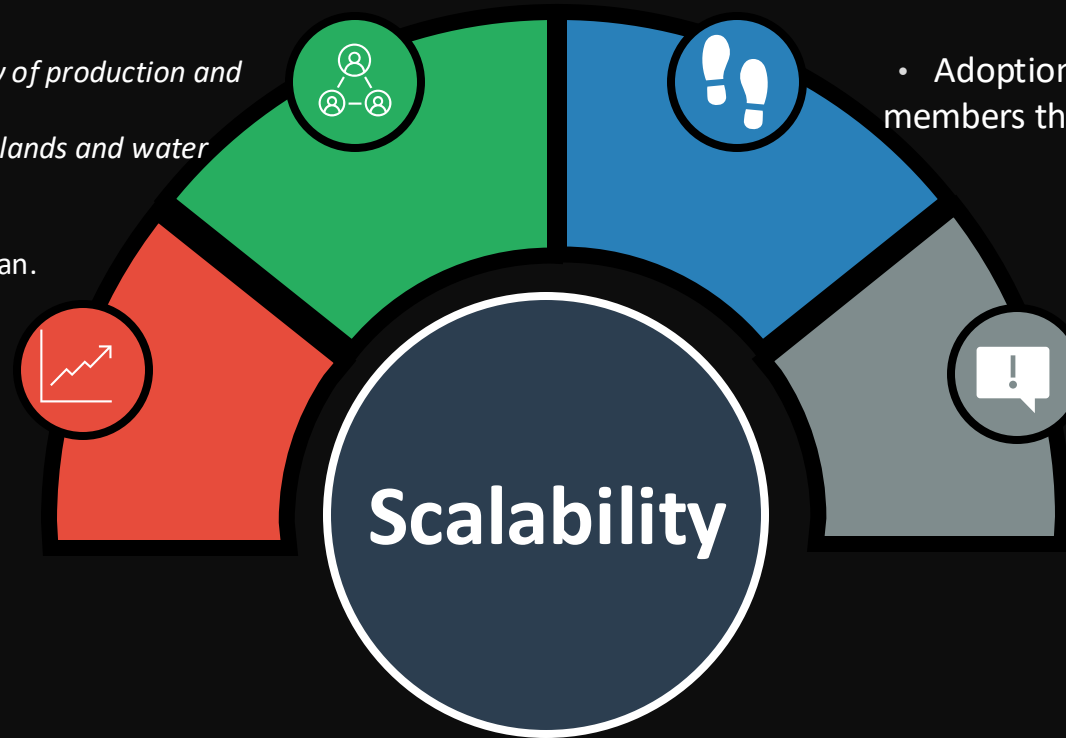


Who is involved

- Agriculture and rangeland department, Ministry of production and economic resources, Kassala State, Sudan.
- Agriculture Research Corporation, center of dry lands and water harvesting.
- Abujungol village and Wad Eisa village
- Rural Kashim Algirba locality, Kassala State, Sudan.

Scalability

- Aligns with TAP for nationwide rollout (15 Hafirs in 15 states)
- Proven tech transfer model



Potential leads

- Adoption by project proponents and steering committee members through their extended projects *e.g.* ARC, UofK, HCENR, RCWH, ministry of water resources and irrigation.

Emphasis

- Builds national innovation systems for adaptation
- Reduces conflict risks via resource equity