

# The Horn of Africa Groundwater for Resilience Regional Program

## Informative Brochure on Kenya Activities



Ministry of Water,  
Sanitation and Irrigation



November 2022

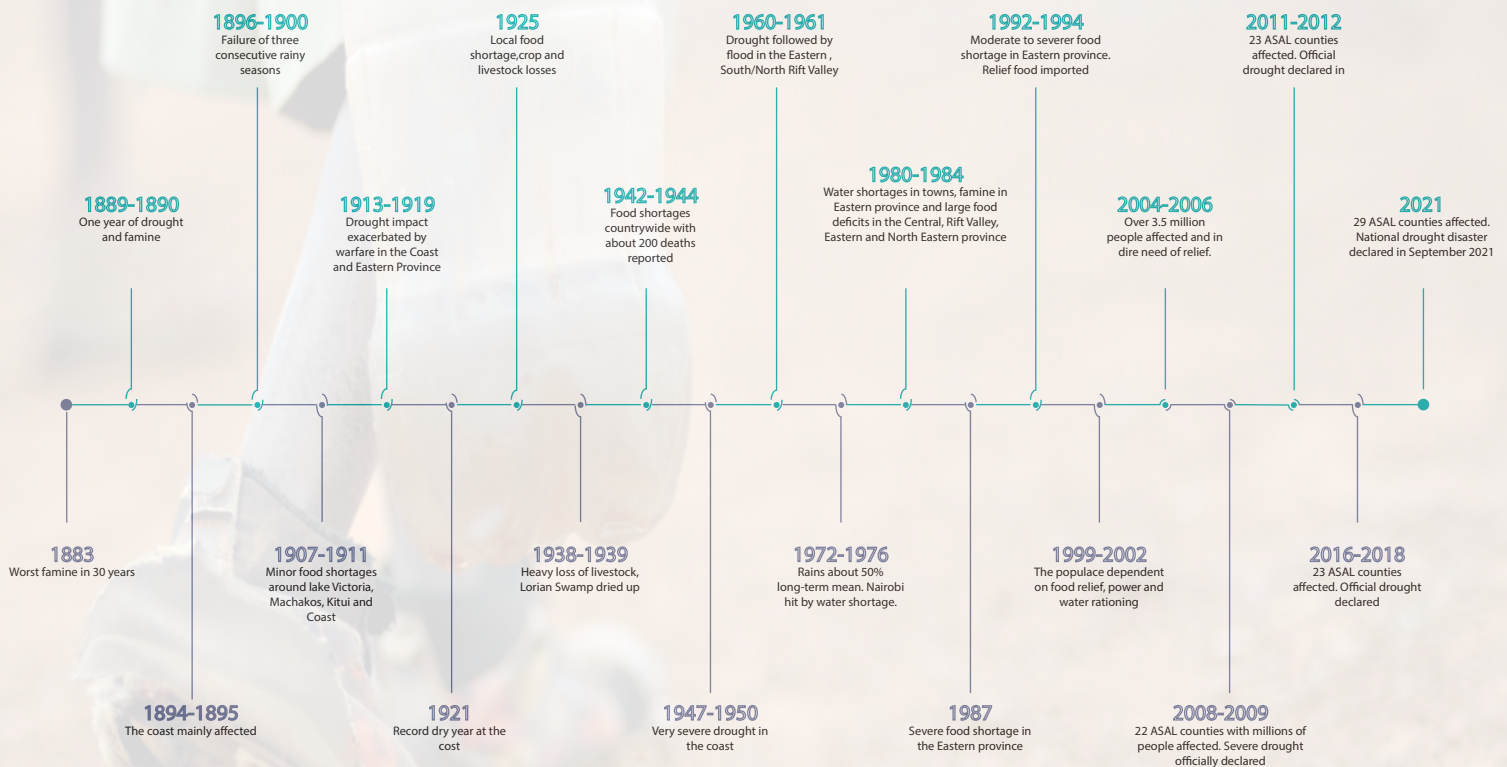
# The Horn of Africa Groundwater for Resilience Project, Kenya

## What is the rationale of this project?

Kenya is a water-scarce nation with 443m<sup>3</sup> per capita of annual renewable freshwater supplies and with 83 percent of its land being classified as arid or semi-arid lands (ASALs).

The country has a highly variable climate and an economy vulnerable to climate shocks. Kenya's high climatic and hydrologic variability results in frequent droughts and floods. Between 1990 and 2015, one drought occurred every 2.5 years and affected about 4.8 million people each time.

The latest drought occurred in September 2021, and it forced the declaration of a national drought disaster with over 2.1 million people pronounced food insecure.



In the ASALs of the Horn of Africa (HoA), groundwater plays a critical role in building drought resilience. In times of drought, when surface water dries or silts up, communities, particularly women and children, walk long distances searching for the few available productive boreholes. The drought situation is compounded by high borehole failure which calls for mainstreaming operation and maintenance (O&M) and development of rural water supply schemes.

Drought does not only threaten the livelihoods and food security of these communities (drought-related livestock losses amounted to US\$1.08 billion in the last decade) but also creates tensions over scarce water resources and exacerbates conflict and fragility within and across Kenya, particularly in the borderlands.

To address these challenges and to build the resilience of vulnerable communities, tapping the region's groundwater potential is key.

## Origin of the project and regional implications



On October 28th, 2020 the HoA's Finance Ministers were convened by the Intergovernmental Authority on Development (IGAD) under the Horn of Africa Initiative.

In this meeting, the role of groundwater in the HoA region was highlighted and prioritized under the Resilience Pillar of the HoA Initiative. After the meeting, the Ministries of Finance from Djibouti, Ethiopia, Kenya and Somalia made a communiqué where they committed to continue investment and policy action with a request to development partners to expedite preparation and approval of the projects they plan to support.



Accordingly, the preparation of the Horn of Africa Groundwater for Resilience Program with Djibouti, Ethiopia, Kenya, Somalia and IGAD was initiated. In Kenya, the World Bank engaged the Ministry of Water, Sanitation and Irrigation (MoWSI) along with other key stakeholders to advance the design of groundwater interventions.



The total amount allocated to for the proposed interventions in Kenya is USD 136 million. For every dollar Kenya invests, the Regional IDA contributes two dollars. Thus Kenya contributes one-third of the total envelop it receives for project interventions.

## What is the objective?

The Horn of Africa Groundwater for Resilience Regional Program and the associated country specific projects aim **“to increase the sustainable access and management of groundwater in the Horn of Africa borderlands”**.

## Where will it be implemented?

The Kenya Project focuses on interventions in aquifer systems with regional and transboundary implications in the Kenya ASAL areas (see yellow and blue aquifers in the map) and drought-affected communities within the North and North Eastern Development Initiative (NEDI) counties bordering Ethiopia and Somalia (see green areas in the map). Hence, the five target Counties are: Turkana, Marsabit, Mandera, Wajir, and Garissa.

These areas are close to the borders of Ethiopia and Somalia and have been prioritized given the

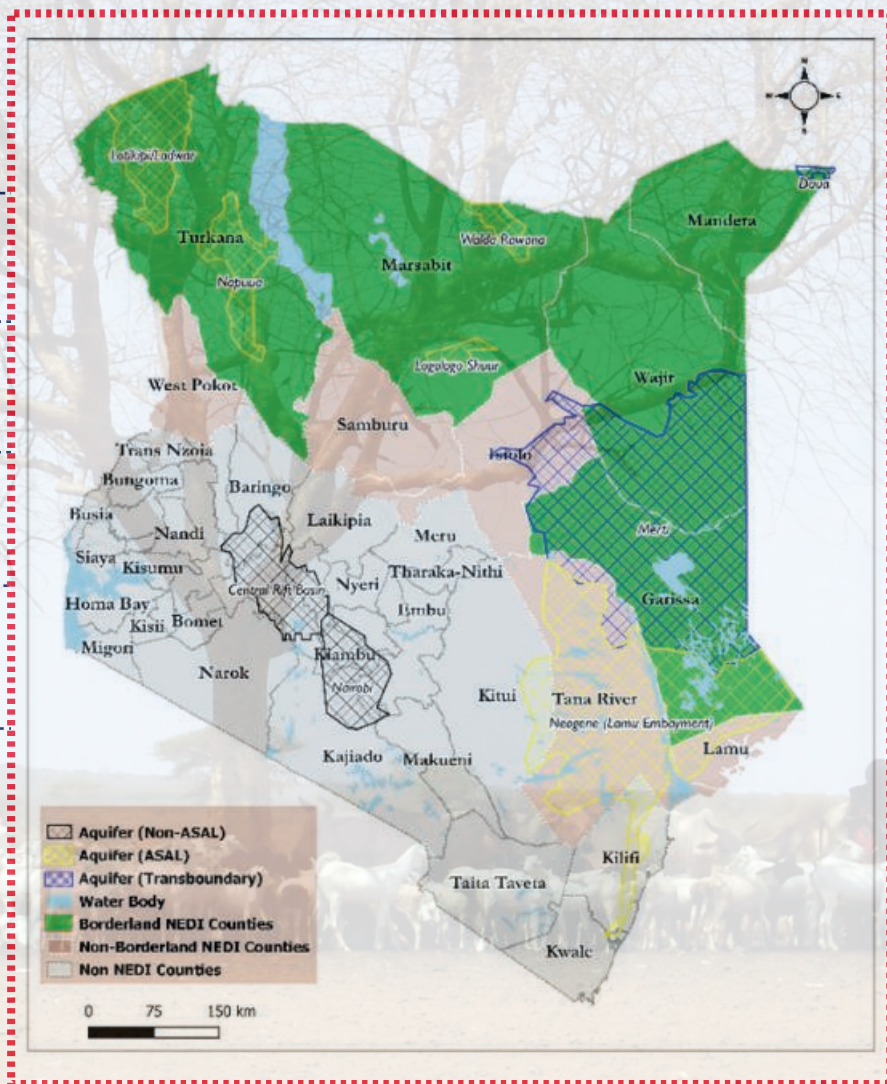
○ Turkana

○ Marsabit

○ Mandera

○ Wajir

○ Garissa



## Who Benefits?



**5** counties  
Turkana, Wajir, Garissa,  
Marsabit, Mandera



over **10** institutions

- Ministry of Water Sanitation and Irrigation
- Water Resources Authority
- Water Sector Trust Fund
- Regional Center on Groundwater
- County Water Departments of the 5 counties
- National Drought Management Authority

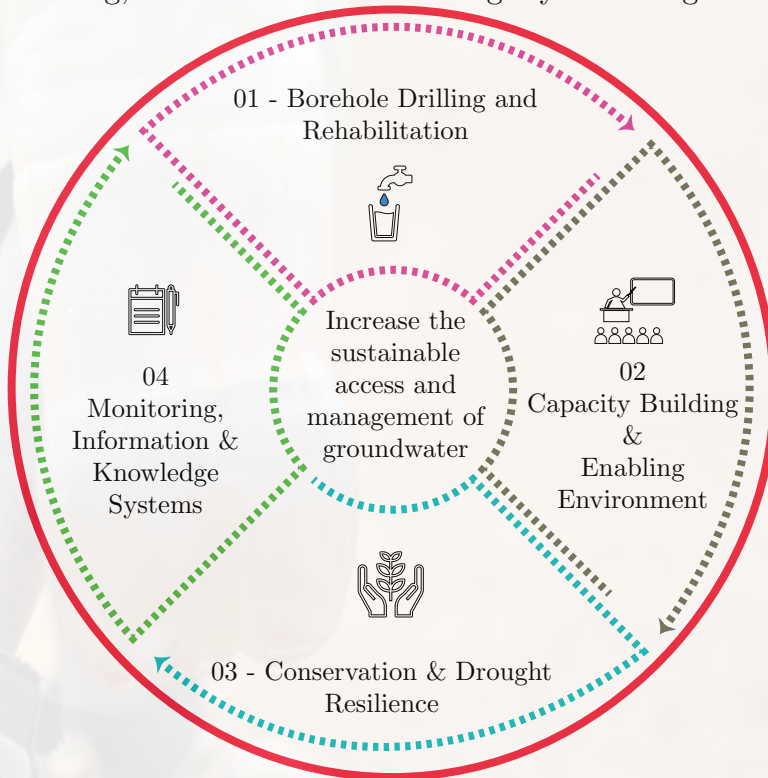


**1.5** million  
people approximately

## What does the project entail?

To achieve the objectives, the project intends to:

- Rehabilitate approximately 400 rural water schemes and drill new drought-strategic boreholes where feasible
- Develop stakeholders' capacity and strengthen the enabling environment (plans, regulations and guidelines) for the sustainable management, access and use of groundwater resources. The project will leverage the regionality of the program by coordinating with IGAD and other country projects.
- Conserve groundwater resources and build resilience against drought.
- Enhance monitoring, information and knowledge systems in groundwater management.



### 01 - Rehabilitation of Water Schemes



- ✦ Develop asset inventories of the County water services
- ✦ Screen/rehabilitate approximately 400 water schemes
- ✦ Build systems for professional O&M institutions
- ✦ Engage with local community

### 02 - Capacity Building & Enablers



- ✦ Domesticate water laws for rural services
- ✦ Build capacity (logistics and human resource) at national & county levels
- ✦ Raise awareness about sustainable groundwater use

### 03 - Groundwater Conservation & Drought Resilience



- ✦ Enhance capacity of WRUAs
- ✦ Enhance storage capacity of aquifers
- ✦ Improve drought preparedness
- ✦ Protect aquifer recharge zones
- ✦ Improve and enhance strategic borehole networks

### 04 - Monitoring, Information & Knowledge Systems



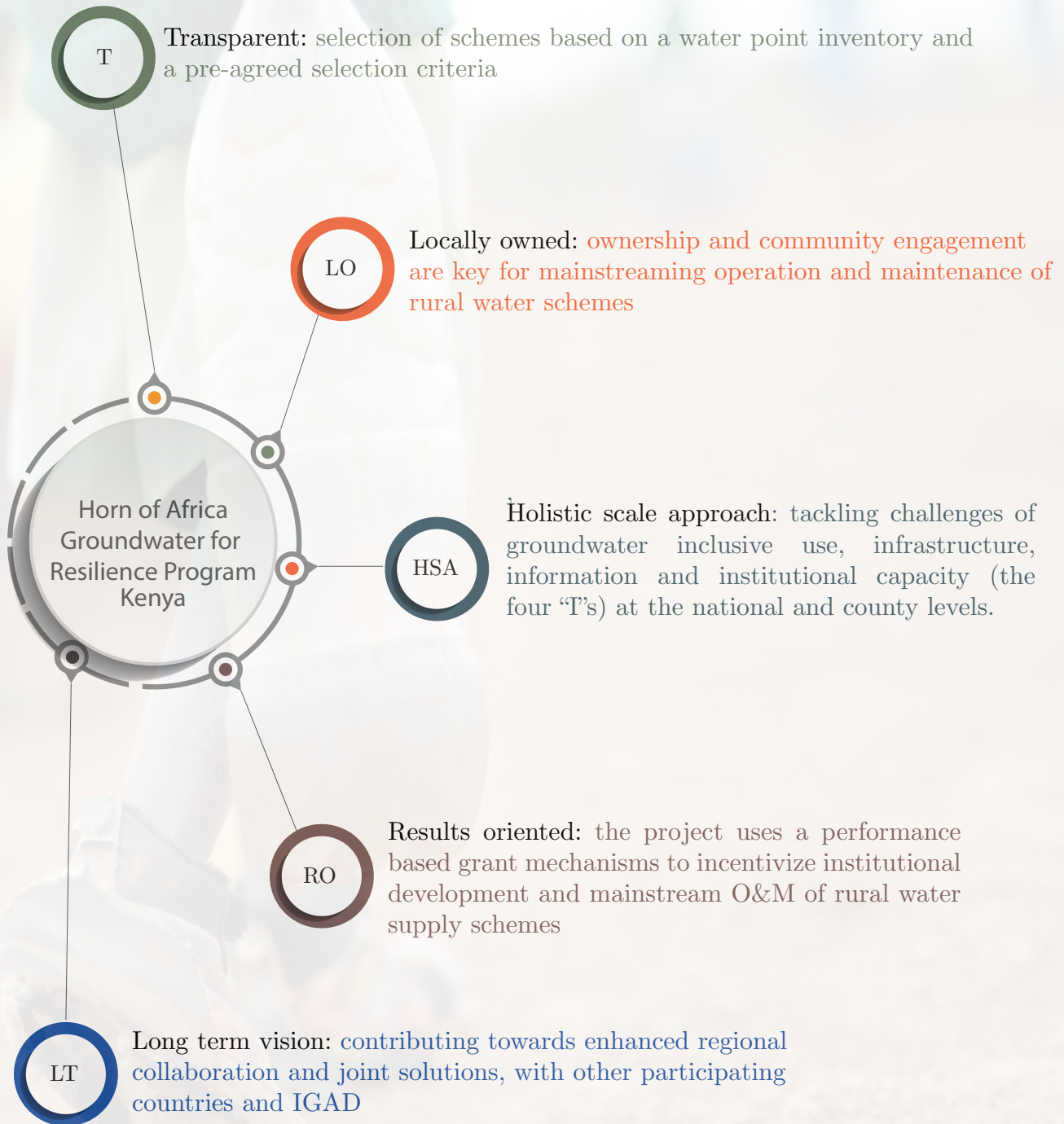
- ✦ Develop aquifer assessments, development and management plans
- ✦ Establish county water services management information systems (MIS)
- ✦ Develop groundwater MIS and decision support tools

## When and how long is the implementation?

The project is planned to span six years from July 2022 through to December 2027.



## What is different about this project?



## Who implements the project?

The Department of Water Resources in the MoWSI will be responsible for the overall project coordination. MoWSI will also be in charge of implementing activities related to transboundary and national groundwater policies and dialogues; and groundwater capacity building activities along with the Regional Center on Groundwater. The project will be closely coordinated with IGAD and other participating countries.

The Water Resources Authority (WRA) and the Water Sector Trust Fund (WSTF) will be the main project implementers. The WSTF will work together with the counties of Turkana, Marsabit, Mandera, Wajir and Garissa through their County Water Departments and the Water Service Providers. The WRA will support the Water Resources User Associations (WRUAs) to implement water resource conservation and management activities under the project.

# Horn of Africa Groundwater for Resilience Program KENYA

