Turkana

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Context & Climate Vulnerability

Turkana is a highly vulnerable dryland region marked by extreme poverty and low literacy rates. Livelihoods depend heavily on migratory pastoralism, which frequently sparks resource-based land conflicts.

Key challenges:

- Increasing drought frequency and sudden heatwaves.
- Evolving systems: Nomadic pastoralism is shifting toward localized agro-pastoralism using irrigation pathways along the Turkwell River and River Kerio.

Multi-stakeholder network

ALBATROSS engaged 60 active local actors in baseline assessments to identify user requirements and to identify their prioritized needs for NbS and CIS.

Key Institutions: Kenya Meteorological Department (KMD), IGAD/ICPAC, ARPAE, and Turkana County Government.

Community Core: Traditional pastoralist groups, local NGOs, elders, and indigenous healers.

Integrating local climate services

The primary focus of the Turkana Hub is translating abstract meteorology into practical, field-level land decisions. This involves aligning seasonal forecasting and projections with direct actions:

- Crop Planning: Using tailored rainfall forecasts to optimize planting schedules along fragile riparian zones.
- Livestock Migration: Delivering timely drought maps to coordinate pasture use and reduce migratory resource conflicts.
- Knowledge Synthesis: Co-developing approaches to merge traditional predictive forecasting from elders with county meteorological metrics.

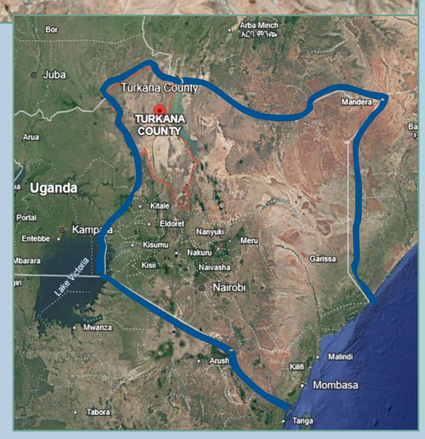
Geographic area:
Northwestern of Kenya, North Eastern Africa

Regional climate:
Arid hot desert (BWh)

Main meteorological hazards:

Drought

Extreme heat



Nature-based solutions

To mitigate severe climate impacts, the hub selected tailored Nature-Based Solutions (NbS) targeting land recovery and water retention:

- Agroforestry: Integrating drought-hardy species (Neem, Acacia) with maize and fodder to secure agricultural soils.
- Pasture Reseeding: Utilizing local seed varieties coupled with rotational grazing protocols within established enclosures.
- Riparian Restoration: Installing sand dams along dry riverbeds for efficient water harvesting and bank stabilization.

Actions & expected benefits

By mapping local hazards and identifying exact NbS implementation zones, ALBATROSS establishes concrete socioeconomic advantages:

- Empowerment: Upskilling young Eco-Champions and rural women along the Turkwell River to deploy impact forecasting.
- Risk Mitigation: Higher agro-pastoral yields and enhanced water security via ecosystem preservation.
- Landscape Recovery: Stabilized riverbeds and reduced socio-ecological vulnerability across climate-threatened zones.

Policy Briefs for Kenya

ALBATROSS has developed a set of policy briefs, synthesising findings from a multi-level policy analysis of more than 250 national and sub-national policy documents, as well as regional and transboundary frameworks, across five Sub-Saharan African countries: Ghana, Kenya, Madagascar, South Africa, and Tanzania.

The analysis assessed the level of integration of Sustainable Development Goals (SDGs), Nature-based Solutions (NbS), Climate Services, Gender and Social Inclusion, and Indigenous and Local Knowledge (IKLK) into environmental and climate frameworks.

Hub coordinator and main implementer of interventions:
University Of Nairobi

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