

CLIMATE SERVICES FOR THE HORN OF AFRICA DRYLANDS



PROJECT DESCRIPTION

The Horn of Africa is a region plagued by recurrent drought, which makes rural communities extremely vulnerable to water scarcity, food insecurity and economic losses during drought periods. Severe and prolonged droughts result in reduced soil moisture and drinking water reserves, producing food insecurity, livestock loss and major water shortages, affecting millions of people within the Horn of Africa drylands (HAD). The EU-funded **DOWN2EARTH** project aims to improve community-centric adaptation and resilience to droughts in Ethiopia, Kenya and Somalia. The focus is on providing tools that forecast and project future water scarcity and its consequences at or near the Earth's surface for the agro-pastoral populations of the HAD.

DOWN2EARTH is developing decision-support tools and climate adaptation policies, and will build regional capacity for generating and disseminating targeted information to relevant stakeholders. The project assembles a multidisciplinary project team from 14 institutions spanning 8 countries, composed of experts and specialists in social science, rural development, media communication, climate science, meteorology, environment, hydrology, policy analysis, GIS, remote sensing, computer science, decision-support, modelling, and dryland processes.

PROJECT

OBJECTIVES

Prolonged periods of extreme water scarcity induced by drought are detrimental to regional economies through crop and livestock loss, threatening food security in rural communities, and making politically unstable regions more vulnerable to conflict, terrorism, and mass migration. The rural communities of the Horn of Africa Drylands (HAD) are extremely vulnerable to food insecurity and associated economic losses during drought conditions due to low socio-economic levels and low adaptive capacity to climatic shocks, such that increasingly frequent and more severe droughts in HAD have had major impacts on lives and livelihoods within rural agro-pastoralist communities.

DOWN2EARTH will deliver state-of-the-art and community-relevant climate services that focus on water scarcity and food insecurity and their consequences at or near the Earth's surface (hence **DOWN2EARTH**). The project is designed to bolster existing climate services, improve decision support within organizations, and in the most vulnerable rural communities of Kenya, Somalia, Ethiopia. Our long-term goal is to improve community-centric adaptation and resilience to climate change.

WE AIM TO

- 1) assess the socio-economic dimensions and human dynamics of climate change including feedbacks between climatic shocks, human behavior, and policy implementation;
- 2) characterize historical trends and future projections of water scarcity, food insecurity, population, and land use;
- 3) develop and enhance decision-support tools that translate climate information into critical land and water information required for adaptation and resilience by rural end users and state/regional governments; and
- 4) strengthen regional climate services through capacity building, citizen science, information dissemination, expansion of data networks, and policy development.

We are always open to collaborating with more stakeholders to achieve broader and stronger impacts across the HAD region.

Please get in touch: down2earth@cardiff.ac.uk



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