



Deliverable 6.1 Project Website

Acronym	DOWN2EARTH
Title	DOWN2EARTH: Translation of climate information into multilevel decision support for social adaptation, policy development, and resilience to water scarcity in the Horn of Africa Drylands
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WP/Task/Thematic Team	6/6.1/Dissemination and Communication Team
Author	Ali Cotton
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1. Project Introduction

The DOWN2EARTH project will address the multi-faceted challenges of water scarcity and food insecurity under climate change in Horn of Africa Drylands, by facilitating community-centered adaptation and resilience to climate change impacts. It will use a multidisciplinary, inclusive approach, bringing together local communities, academic experts, novel decision-support tools, multi-level governance structures, regional climate centers, and NGOs.

2. Website Deliverable

The DOWN2EARTH website, launched on November 5th 2020, can be found here <http://down2earthproject.org/>. The website aims to provide up-to-date, user-friendly news and project information to be disseminated, not only to the consortium and project partners, but more broadly to all interested stakeholders and the general public. All consortium partners will be invited to contribute blogs and news articles over the lifetime of the project, and website updates will be the responsibility of the project manager. The website will be updated and improved regularly with the support of a website taskforce, comprised of interested members of the communication and dissemination thematic team.

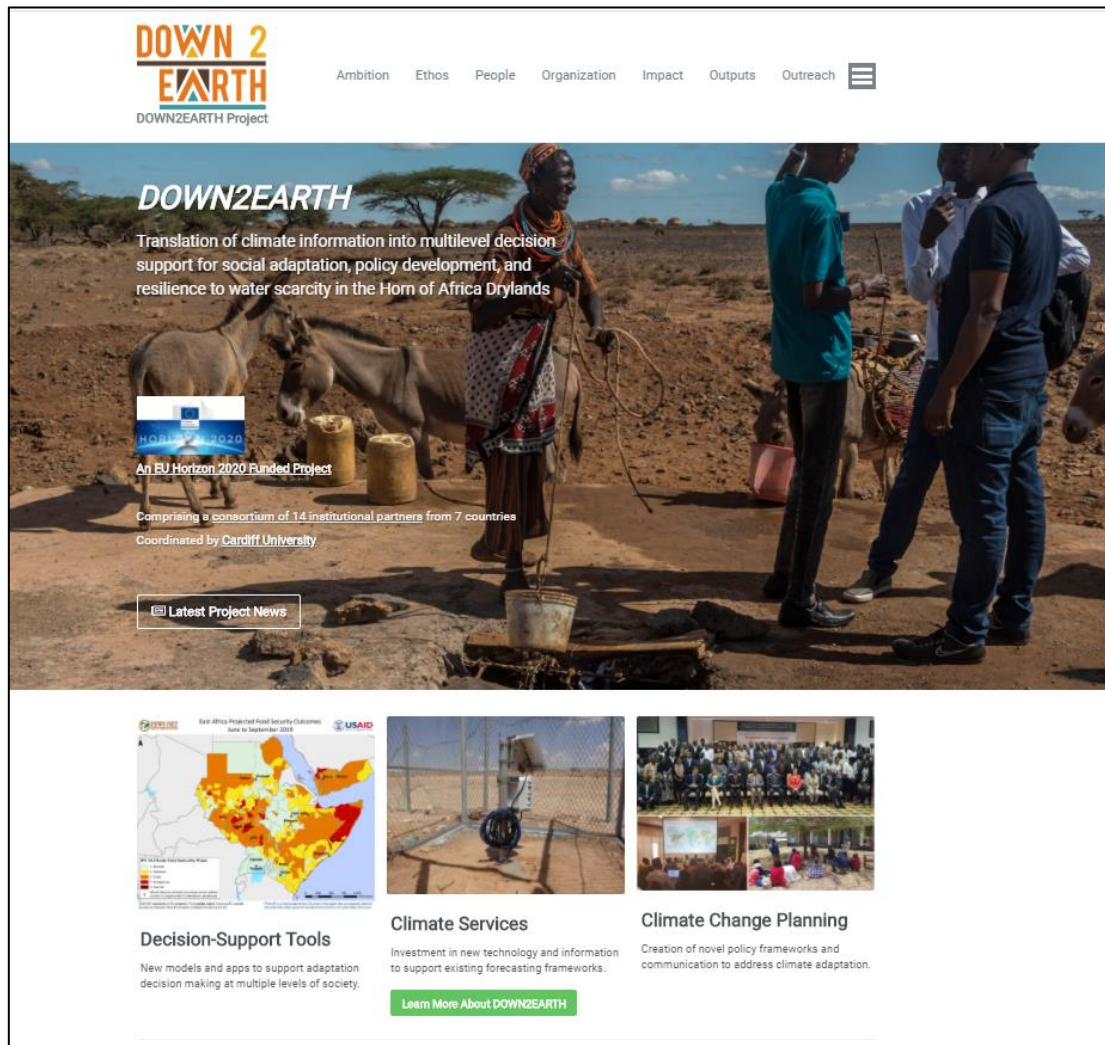
3. Website Structure

The website is comprised of 9 sections as detailed below and further explained in each subsections with screenshot examples:

Section	Short Description
Main title and header	This page describes the main goals of the project and links to learn more
Ambition	There is detail here about the project ambition and the thematic teams that will undertake the work
Ethos	In this section there is an explanation of the ethical and moral direction that underpins the project
People	Each key member of the team has a profile with professional links and a short biography
Organisation	This page details some of the key structures in place as well as synergies with our Horizon 2020 sister projects.
Impact	This page outlines the different ways that the project will have real-world impact such as policy and climate service applications
Outputs	All project outputs, including academic and non-academic, will be detailed here
Outreach	The project has a number of communication and dissemination activities and the key ones are described here
News	Project and wider news will be added here, including blog posts and articles

3.1. Main Page and Header

The main page provides a basic description of the project including links to the key elements of the project: decision support tools, climate services and climate change planning. The header along the top provides information on all the website pages and there is a Horizon 2020 funding link.



3.2. Ambition

This page details the challenges facing the HAD region and then provides information and links to the six thematic teams that will undertake different elements of the project. The six thematic teams are the model development team, the app development team, the end user and engagement impact team, the dissemination and communication team, the policy development team and the climate and water data team. These groups form the backbone of the project work with each thematic team consisting of a range of interdisciplinary members across many of the consortium partners.

DOWN2EARTH Project Ambition

Addressing water and food security challenges in HAD.

Water scarcity, or a deficit in the amount of water available to humans, impacts many critical sectors of society including water supply, food security, land use, hydro-electric energy, and health. Prolonged periods of extreme water scarcity induced by drought are detrimental to regional economies through crop and livestock loss threatening food security. The drylands of the Horn of Africa region depend on seasonal rainfall to sustain subsistence (primarily rainfed) agriculture, so they are extremely vulnerable to water scarcity and food insecurity, with associated economic losses during drought conditions when the rains are well below average. These rural communities of Horn of Africa Drylands (HAD), tend to have low socio-economic levels, and low adaptive capacity to climatic shocks, such that recent severe droughts have dramatically increased food insecurity. Despite the proliferation of improved climate information for the region, and resulting improvements in early warnings, major uncertainties remain about the links between key seasonal climate variables and water scarcity, and the consequential impacts to livelihoods and wellbeing.

The **DOWN2EARTH** project will address the multi-faceted challenges of water scarcity and food insecurity under climate change in HAD, by facilitating community-centered adaptation and resilience to climate change impacts. It will use a multidisciplinary, inclusive approach, bringing together local communities, academic experts, novel decision-support tools, multi-level governance structures, regional climate centers, and NGOs. It will deliver state-of-the-art and community-relevant climate services that focus on water scarcity and its consequences at or near the Earth's surface (hence **DOWN2EARTH**) to increasingly vulnerable rural populations in HAD. The project is designed to bolster existing climate services frameworks, improve decision support to people, governments, and NGOs serving affected rural communities in the most vulnerable HAD countries (Kenya, Somalia, Ethiopia), and to improve community-centric adaptation and resilience to climate change.

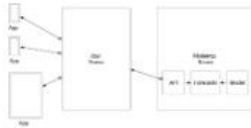
Below you can learn about some key components of our project.



Model Development

Development of new decisionmaking tools to aid in climate adaptation.

[Learn More](#)



App Development

Creating new methods for delivering climate and water information.

[Learn More](#)



End-User Engagement and Impact

Understanding the perspectives and needs of agro-pastoralist communities.

[Learn More](#)



Dissemination and Communication

Broadcasting messages on new knowledge created in DOWN2EARTH.

[Learn More](#)



Policy Development

Co-development of new policy frameworks for climate adaptation.

[Learn More](#)



Climate/Water Data

Analysis of historical climate, forecasts, and future climate projections.

[Learn More](#)

3.3. Ethos

The Ethos page outlines the overarching challenges of working from a European perspective in Africa, and the historical and systematic ethical issues underpinning this type of work. DOWN2EARTH has a clear ethos on social, racial and gender issues and these are outlined here.

DOWN2EARTH Project Ethos

Co-development of knowledge to aid in climate adaptation.

The *DOWN2EARTH* project acknowledges that as a project funded by the European Union with many partners from Europe, we have a particular vantage point on issues of water and food insecurity in the Horn of Africa Drylands (HAD). We recognize how systemic racism, sexism and colonialism are and have been, leaving power concentrated in the hands of a small, northern community of elites. We are constantly self-reflecting on how systemic power and inequality, impact the current political, economic and development contexts of our project. We also recognize strong gender power differences that affect the voice and agency of women and girls in society.

Our project team will work to combat inherent societal racism, sexism, and colonialism within our team, in our interactions with stakeholders, and in the project outputs we generate. We take this responsibility seriously and will continually look to develop and implement anti-racist, anti-sexist, and anti-colonialist practices in the management and interactions in *DOWN2EARTH*.

3.4. People

Each of the key consortium members working on DOWN2EARTH have a profile on the website, which includes a picture, short biography and professional connections.

DOWN2EARTH Consortium

14 institutions from 7 countries in 1 interdisciplinary team.

DOWN2EARTH assembles a multidisciplinary project team, composed of experts and specialists in social science, rural development, gender studies, media communication, climate science, meteorology, environment, hydrology, policy analysis, GIS, remote sensing, computer science, decision-support, and dryland processes. Team members are listed below by partner institution along with their primary Thematic Team affiliation on *DOWN2EARTH*.

Cardiff University (CU)

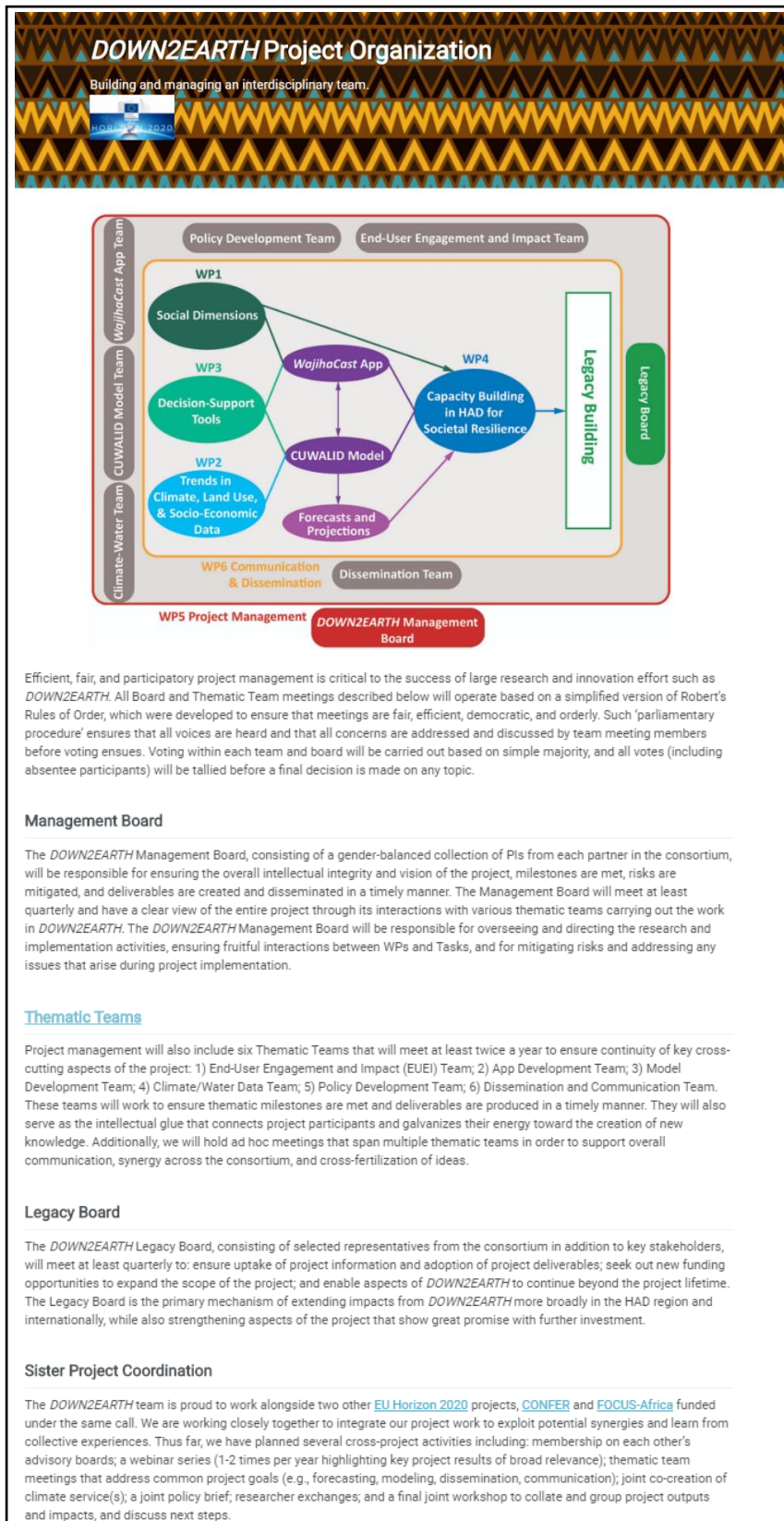




[Michael Bliss Singer](#), *DOWN2EARTH* Principal Investigator and CU Principal Investigator, [Model Development Team](#)

3.5. Organisation

DOWN2EARTH is a multifaceted project with a layered organisation structure. The website page highlights the interactions between the main components of the project, the work packages and the thematic teams. It also discusses the structure of the management and legacy boards and how the project looks to build on similarities and synergies with sister EU Horizon 2020 projects.



3.6. Impact

A key part of the DOW2EARTH project is the multiple points of impact that should arise from the work. The key ones are detailed on this page, including obtaining a thorough understanding of end-user needs and engagement, evidence-based changes to policy and improved climate services focussed on the HAD region, both in terms of data and capacity building.



DOW2EARTH Project Impact
Narrowing the gap between ambition and implementation.

The DOW2EARTH project is inherently focused on maximizing impacts to people, institutions, and policy within and beyond the affected communities of HAD. The research activities proposed in our project are aimed at improving regional climate services delivery and promoting adaptation to climate change for HAD through new and enhanced decision-support tools, capacity building, citizen science, information dissemination to improve multi-level decision making, expansion of data networks, and climate change adaptation policy implementation.

Involvement of End-Users and Stakeholders

A key component in Responsible Research and Innovation (RRI) is to incorporate people from different levels of society with different experiences and perspectives in projects aiming toward common goals. In order to achieve this, DOW2EARTH will, by design, directly involve end-user agro-pastoralists and a wide range of relevant stakeholders from government, NGOs, and international/regional organizations from inception through to project completion. For example, end-user agro-pastoralists will provide critical input that will support the co-development of new decision-support tools, new climate adaptation policy frameworks, new media content on climate adaptation, and to the expansion/enhancement of in situ monitoring networks. Government and NGO stakeholders charged with managing land, water, and food resources and disaster response will be involved in discussions and presentation of new information on seasonal forecasts at climate outlook fora (GHACOF) and food security (FRAH) meetings, and they will use this information to plan upcoming activities and allocate necessary funds based on the severity of the risk to human populations. And new decision-support tools will be delivered to the HAD region, to be incorporated into current forecasting systems, for use by ICPAC staff, as well as civil servants within governmental meteorological and management organizations in HAD. Finally, policymakers, high-level government officials and international NGOs will be involved (along with agro-pastoralist end-users) in discussions and scenarios of future policies designed for climate adaptation.

Policy Context

A primary goal of this project is to inform and improve policies on climate change adaptation to support long-term resilience of agro-pastoralist communities in HAD. We believe that the next generation of climate change adaptation policies and programs for HAD should be based on the best available information of how the climate is changing and how such changes are impacting rural livelihoods. Therefore, in DOW2EARTH we will assess the historical policy environment in the context of the interactions between climate, land use, and human behaviors. Then we will model numerous permutations of these interactions within the context of projected future climate. Finally, we will use the model output alongside information from both agro-pastoralist communities and key stakeholders from each of the three HAD countries to develop new policy frameworks that are tailored to the needs of rural communities (ensuring that the needs of women and girls are accounted for), and which acknowledge the structural constraints of policy makers.

Climate Services Capacity Building in HAD


A primary goal of the DOW2EARTH project is to strengthen and enhance the existing capacity of ICPAC as World Meteorological Organization (WMO) main Regional Climate Center (RCC) providing climate services. To achieve this, we will enhance existing capability to provide seasonal forecasts to a wide range of stakeholders through the Greater Horn of Africa Climate Outlook Forums (GHACOFs), a meeting of ~200 organizations from eight drought-prone member states, and numerous other international organizations (UN). DOW2EARTH will improve upon the climate information delivered at these

3.7. Outputs

There will be a number of project and research outputs arising from DOW2EARTH, and these will be highlighted on this page. This will serve as a focal point for all interested parties to engage with the different interesting elements arising from the project work. These are split into peer reviewed publications, as well as non-peer reviewed academic content such as conference abstracts and presentations. Grey literature, external news coverage, blog posts and resources will also be listed with relevant links.

DOWN2EARTH Project Outputs

Publications and other products from *DOWN2EARTH*.



Student and postdoc work denoted by *.

Academic Peer Review Publications

Singer, M.B., *Asfaw, D., Rosolem, R., Cuthbert, M.O., *Quichimbo, A., Miralles, D.G., Mitchell, D., Michaelides, K. (In Preparation); Hourly potential evapotranspiration (hPET) for the global land surface over recent decades

Singer, M.B., *Asfaw, D., Jones, O., Michaelides, K. (In Preparation); STORM 2.0: A simple decision-support tool for exploring the impacts of climate and climate change at or near the land surface

*Kipkemoi, I., Michaelides, K., Singer, M.B., Rosolem, R. (In Preparation); Climatic expression of rainfall on soil moisture dynamics in drylands

*Quichimbo, E.A., Singer, M.B., Michaelides, K., Hobley, D., Rosolem, R., Cuthbert, M.O. (In Preparation); Development of a parsimonious model for assessing climate impacts on the water balance in drylands across spatial and temporal scales

*Adloff, M., Singer, M.B., *MacLeod, D.A., Michaelides, K., *Mehrnagar, N., Hansford, E., Funk, C., Mitchell, D. (In Revision); Groundwater storage in East African drylands dominated by increasing intense seasonal rainfall

Academic Non-Peer Review Publications

Non-Academic Outputs

3.8. Outreach

Project outreach in *DOWN2EARTH* involves a varied array of methods, including media training of journalists in Kenya, training of climate services professionals, mobile and desktop app development and a range of global outputs on social media, as well as podcasts and webinars.

DOWN2EARTH Project Outreach

Communicating about climate change adaptation.



Effective communication of project goals, methods, and findings for multiple audiences is critical to achieve broad uptake of new data, models, early warning systems, policy frameworks, and ideas developed in *DOWN2EARTH*. Our communication strategy is based on broad dissemination of our messages to a wide range of audiences in different venues and forums, tailoring the message to the relevant audience, and using the most effective means of communication for the target audience.

Capacity Strengthening Activities with Media Practitioners

We will help to strengthen the capacity of targeted media practitioners to produce relevant, accurate, culturally sensitive content with a specific focus on water scarcity, food insecurity, and climatic adaptation by rural communities. In the lifetime of our project, we will conduct this work as a pilot in Kenya. The longer term goal is to develop new media content (e.g., radio programs), facilitated by BBC Media Action, designed to convey information about climate change adaptation in a format that make it accessible and digestible to rural agro-pastoralist communities, particularly targeting by gender and age, so they can have better information to make decisions based on seasonal forecasts. In *DOWN2EARTH* we will conduct audience research and share the findings with the radio stations. We will then use these findings to help the journalists craft output that really meets the station's audience's information needs. We will support the journalists to make effective relationships with scientists and met office officials to enhance their reporting.

Early Warning Systems

Another important means of communication with rural agro-pastoralists in *DOWN2EARTH* will be the desktop and mobile phone apps, which is designed to communicate critical information about water scarcity and food security over the broad region of HAD. Since end-users will be involved in development of the app, we anticipate uptake of the app and wide usage of it across groups, including women. At a level up from these rural communities, we will use results from our hydrological model to feed into GHACOF and IFRAH meetings, which will support the uptake and use of model output by a wide range of stakeholders including government ministries and humanitarian organizations. Finally, we have a long-term goal of embedding our model output for climate forecasts in HAD into the Famine Early Warning System Network (FEWS NET), which will allow an even wider reach to decision makers grappling with responses to drought risk and potential famine.

Other Mechanisms

Publications, Conferences, Workshops, Other International Meetings, Webinars, Promotional Videos, Web Presence, Podcasts, Social Media, Blog Posts

Links to *DOWN2EARTH* Outreach Content (active soon)



3.9. News

A range of stakeholders and consortium members will be contributing blogs and posts on the website, in order to disseminate the work being done on the project as well as the challenges and developments that emerge. This page will give everyone following the project a good snapshot of the work each thematic team is undertaking and allow each of the team members a voice to discuss their own work.



4. Future Website Updates

The website in its current form is a basic outline of its evolution in the future. This site is a living document which will change as the project evolves and more data and information comes to light. The project manager will keep in touch with the consortium members on updates, news and blogs and each thematic team will be involved in ensuring their pages are kept current. The website will be promoted through the DOWN2EARTH social media and any podcasts and webinars will likewise be promoted via the website.