Africa Asia Drought Risk Management Peer Assistance Network

September 2017 Issue

Special Topic

Global Framework for Climate Services

GFCS GLOBAL FRAMEWORK FOR CLIMATE SERVICES

The Global Framework for Climate Services (GFCS) was established in 2011 as a global, multi-stakeholder framework to reduce the vulnerability of society to climate-related hazards, including drought, through better provision of climate services – or tailored weather and climate information designed to inform decision making across a number of different sectors.

It is a framework designed to mainstream climate science into decision-making at all levels and help ensure that every country and every climate-sensitive sector of society is well equipped to access and apply the relevant climate information. The overarching goal of GFCS is: *To enable better management of the risks of climate variability and change at all levels, through development and incorporation of science based climate information and prediction services into planning, policy and practice.*

The vision of the Framework is to enable society to better manage the risks and opportunities arising from climate variability and change, especially for those who are most vulnerable to climate-related hazards. To achieve this vision, GFCS is built upon the following five components, or pillars:

- **User Interface Platform**: A structured means for users, climate researchers and climate information providers to interact;
- **Climate Services Information System**: The production and distribution system for climate data and information products that address user needs;
- **Observations and Monitoring**: The essential infrastructure for generating the necessary climate data.;
- **Research, Modelling and Prediction**: To advance the science needed for improved climate services that meet user needs; and
- Capacity Development: Effort to support the systematic development of the institutions, infrastructure and human resources needed for effective climate services.

For further details regarding GFCS and its activities under five pillars, please visit http://www.gfcs-climate.org/.

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About AADP

Africa-Asia Drought Risk Peer Assistance Network (AADP) is a network established by UNDP Global Policy Centre on Resilient Ecosystems and Desertification (GC-RED) under the *Africa-Asia Drought Risk Management Peer Assistance Project.*

The project is designed to mitigate the risks of drought and improve human livelihoods in Africa and Asia by creating an enabling environment for inter-regional knowledge sharing among drought-prone countries and facilitating the up-scaling of proven drought risk management (DRM) practices.

AADP provides the DRM practitioners and policymakers with a variety of peer learning and capacity development support to, based on their priorities, operational gaps and capacity needs, building on the pool of experiences and expertise of the ongoing African Drought Risk and Development Network initiative (ADDN).

Click here to view past issues of AADP newsletter.

Knowledge Resources and Networking Opportunities

Design Resilience in Asia

The Designing Resilience in Asia (DRIA) is an International Research Programme on urban and architecture resilience launched in 2014. The DRIA is a flagship initiative of the School of Design and Environment of the National University of Singapore that aims to promote and foster a substantive research and discussion about innovative ideas and propositions towards the resiliency of Asian cities responding to the environmental effects caused by climate change. DRIA views 'resilience' as a model for anticipating, preventing and preparing for the effects of climate change. It is not only timely but critical under the exigencies of the environmental effects caused by global climate change that we are experiencing before us, such as sea level rise, flooding, typhoons, coastal erosion, storm surges, subsidence or droughts.

The DRIA International Research Programme integrates research, education and capacity building efforts, and translates research into practice through specific urban and architectural design solutions and innovative building technologies. The DRIA is formed by an interdisciplinary organisation made up of researchers, designers, architects and planners with a global network of partners from 10 prominent universities from Asia, Australia, Europe, and North America. The DRIA engages and attracts the best minds from across the world to promote innovation, to analyse, and collaborate on creative solutions to help improve recovery efforts for global natural disasters.

Further details on DRIA and its various programmes are available at http://designingresilience.com/.

IMPREX

Recent hydrological extreme events, such as drought and flood, demonstrate the vulnerability of European society to water-related natural hazards, and there is strong evidence that climate change will worsen these events in the coming years. Future hydrological extremes may be very different from today's reality and difficult to predict. There is an urgent need for "actionable research" to guide decisions. In this context, Improving Predictions and Management of Hydrological Extremes project (IMPREX) is designed to support the reduction of Europe's vulnerability to hydrological extremes through improved understanding of the intensity and frequency of future disrupting events. Enhancing our forecasting capability will increase the resilience of the European society as a whole, while reducing costs for strategic sectors and regions.

IMPREX is built on the idea that we can learn from today to anticipate tomorrow. The project invests in improving current state-of-the-art forecasting systems and puts current experience with extremes in a future context. IMPREX is supported by a strong team of experts from public and private sectors as well as universities and research institutes with complementary skills and experiences. The direct involvement of a broad range of users from key economic sectors will ensure the relevance of the project outputs.

Please visit http://www.imprex.eu/ for more information concerning IMPREX and it activities and resources.

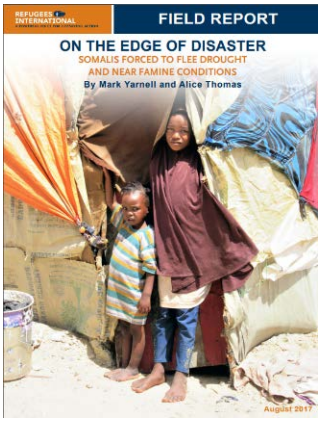
Turning Soils into Sponges: How Farmers Can Fight Floods and Droughts

Floods and droughts are highly damaging and becoming more so each year. Combined, these extreme weather events have caused an estimated $340.4 billion in damages in the United States since 1980. This report draws on experiments from across the world to quantify the benefits of soil-improving agricultural practices, and then predicts the results of applying these practices on a large scale across the state of Iowa in the United States of America. It assesses five farming methods according to their water infiltration rate. The report then analyses how shifts in farming practices in the American Midwest could increase resilience to the kinds of flood and drought events that region has seen in recent years and how this would change under future climate scenarios.

The report concludes that changes in agricultural land use could reduce the damage from future floods and droughts. Soil becomes more 'sponge-like' through the shift to a more continuous cover agriculture, which leaves more water available for crop use during hotter weather conditions and reduces runoff and soil erosion during rainy weather. More crop water use, in turn, translates into greater crop productivity and greater protection from crop losses. Farmers, however, need more research and financial and technical assistance in order to implement these resilient agricultural systems.

The full report is available for download at http://www.ucsusa.org/sites/default/files/attach/2017/08/turning-soils-into-sponges-full-report-august-2017.pdf.

On the Edge of Disaster: Somalis Forced to Flee Drought and Near Famine Conditions



As of August 2017, Somalia remains in the chokehold of a severe, protracted drought. This report documents the humanitarian challenges encountered by more than 800,000 internally displaced persons in Somalia, in the context of drought and ongoing conflict in the country. It outlines problems such as food insecurity and undernutrition, the lack of sanitation and gender-based violence and makes recommendations on the scaling-up and improved coordination of humanitarian response.

Particularly, this report highlights the need for a comprehensive strategy to address drought displacement over the longer term through planning prospects for either the return or local integration in host communities of displaced persons. These plans should aim to mitigate the risk of creating a large, new protracted caseload of IDPs in Somalia. The report also makes the case for humanitarian organisations to support resilience-based drought coping mechanisms and strategies, especially as climate change is expected to contribute to recurring disaster events and changing temperature and rainfall patterns in the region.

The full report is available for download at https://static1.squarespace.com/static/506c8ea1e4b01d9450dd53f5/t/599c5f3a7131a567ce8397c0/1503420237859/2017+Somalia+Report+Final+Final.pdf.

Event and Training Opportunities

African Ministerial Conference on Meteorology – Africa Hydromet Forum (12-15 September 2017; Addis Ababa, Ethiopia)

Africa's development, climate and resilience agendas are inextricably linked. Hydro-meteorological disasters that include floods, droughts, tropical cyclones, lightning strikes and landslides continue to cause heavy damage and loss to livelihoods – an estimated 90% of all disasters on the continent are weather and climate driven. The inaugural African Ministerial Conference on Meteorology (AMCOMET) Africa Hydromet Forum will bring together representatives from governments, public and private sectors, regional entities, development agencies and civil society to provide strategic insight to improve hydrological, meteorological and early-warning services to achieve climate and disaster resilience as part of a larger sustainable development strategy.

Co-hosted by the African Union Commission and the Federal Democratic Republic of Ethiopia, the Forum will build consensus and momentum to modernize weather, water, and climate information services for sustainable development in Africa. The Forum will provide a platform to position hydromet strengthening as a pillar of Africa's climate-resilient development and adaptation planning. It will demonstrate the benefits of doing so across a range of sectors including agriculture, water, transport, natural resource management, environment, energy and disaster risk management.

Please visit https://www.gfdrr.org/amcomet-africa-hydromet-forum-2017 for more information on AMCOMET Africa Hydromet Forum 2017.

Science Summit on Seamless Research for Weather, Climate, Water and Environment (20-22 October 2017; Bali, Indonesia)

High-impact weather, climate, water and environment events undermine the resilience of people and the infrastructures they are relying on. A coordinated research effort and new investments are required to build science for services through seamless prediction systems, benefiting from future infrastructures while nurturing scientific talents. The Summit will provide an opportunity to shape the World Meteorological Organization's (WMO) research agenda, building on the closer collaboration between weather, climate, water and environment research, as well as to close the gap between research and the derived societal benefits.

The Science Summit is structured into five thematic sessions: 1) Developing and implementing a new interactive model for integrating research and operations; 2) Improving predictive capacity across weather, climate, water and environment; 3) Planning and investing in future infrastructures; 4) Guaranteeing the sustainable development of science, breaking through geographical, gender and age barriers and ensuring institutional continuity and transfer of knowledge; and 5) Catalysing innovation and mobilizing resources in weather, climate, water and environment science globally and locally.

Please visit https://public.wmo.int/en/events/meetings/science-summit-seamless-research-weather-climate-water-and-environment for more information on the Science Summit.

Positions and Grant Opportunities

Postdoctoral Research Assistant in Changing Risks of Droughts and Floods in Southern Africa over the 20th Century and in the Future Using Ensemble Climate Modelling – School of Geography and the Environment, Oxford (Closing date: 13 September 2017)

The University of Oxford's School of Geography and the Environment is seeking to appoint a Postdoctoral Research Assistant to join the climate research team in one of the University's highest-profile climate research operations, climateprediction.net. The main focus of this role is to contribute to the project, which aims at not only estimating anthropogenic influences on hydrometeorological events like droughts and floods but going a step further towards the attribution of the impacts of these events in Southern Africa, a region particularly vulnerable to changes in water availability.

The main duties of the postholder will be three fold: (1) conduct attribution studies of societal relevant and hydrological significant extreme weather events in Southern Africa for at least two different events in recent years and estimate the change in risk compared to pre-industrial, early 20th century and future climate conditions; (2) develop a regional climate model over Southern Africa in the weather@home distributed computing framework; (3) develop new ideas for addressing societal relevant research questions on extreme events.

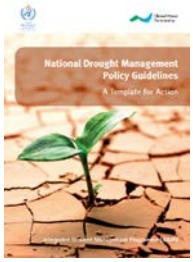
Further details on the position is available at:
https://www.recruit.ox.ac.uk/pls/hrisliverecruit/erq_jobspec_version_4.display_form?p_display_apply_ind=Y&p_applicant_no=&p_refresh_search=Y&p_internal_external=E&p_company=10&p_form_profile_detail=&p_display_in_irish=N&p_recruitment_id=130248&p_process_type=.

Humanitarian Programme Coordinator for Africa/LAC – Care International UK (Closing date: 18 September 2017)

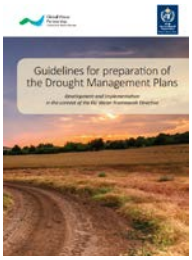
Throughout the past years, CARE International UK's Humanitarian Programmes Team has been supporting CARE country offices in chronic, ongoing and rapid onset humanitarian emergencies, building strong partnerships with other humanitarian actors and donors. As part of the team, the Humanitarian Programme Coordinator (HPC) is expected to manage a growing portfolio and support the large number of projects responding to the East Africa food security crisis, droughts, conflict and displacement, providing relief to populations in need.

Successful candidate is expected to bring strong management skills, as an experienced humanitarian programme worker, with field and/or HQ experience in humanitarian programme management and very good knowledge of humanitarian donors' requirements. He/she is also expected to believe in the core humanitarian principles and ne driven by passion to deliver quality, lifesaving, humanitarian programmes to the most vulnerable, wherever needed.

Further details on the position is available at: https://www.careinternational.org.uk/humanitarian-programme-coordinator-africalac.



National Drought Management Policy Guidelines: A Template for Action (2014)
The National Drought Management Policy Guidelines provide a template for action that countries can use in the development of a national drought management policy and drought preparedness/mitigation plans. The process is structured in 10 steps that can be adapted by countries to reflect their institutional, infrastructure, legal, socio-economic and environmental context. It includes case studies from Brazil, Mexico, Morocco and the USA and will be continuously updated based on the experiences gained in the guidelines' application. The guidelines respond to a need for action oriented drought policies, which Governments articulated at the High-Level Meeting on National Drought Policies. The document is available in Arabic, Chinese, English, French, Russian and Spanish.



Guidelines for preparation of the Drought Management Plans (2015)
The recommendations for the development of a drought management system described in these Guidelines provide a set of basic steps that many drought-affected countries can use to develop national drought policy aimed at risk reduction. The Guidelines are intended for those countries that are trying to move from crisis management to drought risk reduction policy. The step-by-step planning process is based on the National Drought Management Policy Guidelines (2014) and was harmonized especially for the European Union and/or accession countries in compliance with the key principles of integrated water management and within the context of the Water Framework Directive.

Mitigating Droughts and Floods in Agriculture: Policy Lessons and Approaches (2016)
The agriculture sector is particularly exposed to risks of floods and droughts, which may become more frequent and severe due to climate change in the context of increased demand for food and urban space. This report proposes a comprehensive analysis of, and a set of key recommendations on policy approaches to the sustainable management of droughts and floods in agriculture. It builds on recent trends, experiences and research from OECD countries in this area, in particular Australia, Canada, France, Spain and the United Kingdom. It also provides a general policy framework that could be useful for countries to analyze their own drought and flood policies, as well as to identify ways forward.

Useful Links on Drought Status Updates

Africa

African Centre of Meteorological Application for Development: http://acmad.net/new/
African Flood and Drought Monitor: http://stream.princeton.edu/AWCM/WEBPAGE/interface.php?locale=en
Famine Early Warning Systems Network (FEWS NET) Africa: https://www.fews.net/
IGAD Climate Prediction and Applications Centre (ICPAC): http://www.icpac.net/
Integrated Regional Information Networks (IRIN) Africa: http://www.irinnews.org/africa
Prevention Web Africa: http://www.preventionweb.net/english/countries/africa/
Relief Web Africa: http://reliefweb.int/countries
Southern African Development Community (SADC) Climate Service Centre: http://www.sadc.int/sadc-secretariat/services-centres/climate-services-centre/

Asia

Asian Disaster Reduction Center: http://www.adrc.asia/latest/index.php
FEWS NET Central Asia: https://www.fews.net/
IRIN Asia: http://www.irinnews.org/IRIN-Asia.aspx
Pacific Disaster Center/World Natural Hazards Website: http://www.pdc.org/
Prevention Web Asia: http://www.preventionweb.net/english/countries/asia/
Relief Web Asia: http://reliefweb.int/countries
South Asia Drought Monitoring System: http://dms.iwmi.org/

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