Volta

Lake Victoria

Chao Phraya

FLOOD & DROUGHT MANAGEMENT TOOLS

Content Package for Stakeholders

2017

gef

UN environment

DHI

IWA the international water association

The following content is intended for use by stakeholders collaborating on the Flood and Drought Management Tools Project

All content can be modified or adapted to include specific basin- and local-level examples that can illustrate the broader issues being discussed

Improving flood and drought planning in a changing climate

Flood and drought events are becoming increasingly common, more severe and less predictable. Climate change is the major driver, but a growing global population, urbanisation, changing land use, and increased demand for water from agriculture and industry, are putting pressure on limited resources.

River basins are already experiencing these impacts. Transboundary river basins have the additional challenge of multiple countries competing for water resources. There is a growing need to improve our ability to recognise and address flood and drought risks, and to improve resilience and cooperation within river basins.

The [Flood and Drought Management Tools](#) (FDMT) project works in three pilot basins – the Chao Phraya in Thailand, Lake Victoria in East Africa and the Volta in West Africa – to address these challenges through a package of web based tools or technical applications which can be used individually or together to support basin-level planning and decision-making for future severe climatic events. The technical applications enable users to carry out baseline assessments using readily available satellite data, impact assessments through the analysis of the data, planning options and a means for disseminating information to relevant groups or individuals.

The project's technical applications are integrated in a single workflow and can be used anywhere in the world to support planning for floods and droughts. The approach compiles information, from models, indicators and existing planning approaches, so as to develop future planning scenarios that are robust, resilient and pragmatic .The technical applications support decision makers from the basin level to the water utility level, by including better information on floods and droughts to build resilience managing water resources.

John Doe of XXX said, "Climate uncertainty complicates the lives of those who plan for and manage water. This affects basin management organisations and water utilities, but also the agricultural and industrial sectors, local authorities and power companies. We need tools that can better support our work. The FDMT project is helping to address the risk of floods and droughts, and to coordinate the response across the Chao Phraya basin / Lake Victoria Basin / Volta Basin."

Press Release

A partnership to build resilience to floods and droughts in transboundary water basins

(Date: dd/mm/yy) – A new global partnership, the [Flood and Drought Management Tools](#) (FDMT) project, is working to address increasingly severe, more frequent and less predictable floods and droughts in river basins. The Project is developing a methodology to include information of floods and droughts through a collection of web-based technical applications, to support planning and decision-making for future severe climatic events.

The consequences of extreme climatic events are devastating for millions of people around the world, and cause immense economic and environmental harm. River basins are already experiencing these impacts. These risks are magnified further in transboundary contexts, when river basins – often the main source for a country's water supply – have two or more countries competing for the same water resources.

The FDMT project uses scientifically sound information to create technical applications that are integrated in a single workflow, and which can be used anywhere in the world to support planning for floods and droughts. The process developed by the project supports decision makers from the transboundary river basin level to the water utility level, and build resilience within water resources management.

John Doe of XXX said, "Climate uncertainty complicates the lives of those who plan for and manage water. This affects basin management organisations and water utilities, but also the agricultural and industrial sectors, local authorities and power companies. We need methods and applications that can better support our work. The FDMT project improves our ability to address the risk of floods and droughts, and to coordinate the response across the Chao Phraya basin / Lake Victoria Basin / Volta Basin."

Bringing together international, regional and national organisations, including three pilot river basins – the Chao Phraya in Thailand, Lake Victoria in East Africa and the Volta in West Africa – the partnership will improve collaboration and planning for flood and drought risks.

While climate change is the main driver, a complex mix of urbanisation, a growing global population, changing land use, and increased demand for water from agriculture and industry, are putting pressure on limited water resources. At the same time, the hydrological patterns of the past are no longer reliable, making planning for severe weather events increasingly difficult.

Jane Doe of XXX said, "Climate change is being felt most strongly through its effect upon water. There is a growing sense of urgency to improve resilience within river basins, and for this to become a critical part of water management plans. There is a huge need for a tool that is practical and universal, to help improve the ability of local organisations to address the increased frequency of flood and drought events.

"Despite significant progress, for many countries data availability and access is often a key constraints for planning. Addressing issues around water resources management cannot be adequately tackled if there is no reliable information to facilitate decision-making and inform planning."

ENDS

EDITORS NOTES

About the Floods and Droughts Management Tools Project

The United Nations Environment Programme (UNEP) is working with DHI and the International Water Association (IWA) on a Global Environment Facility (GEF) International Waters (IW) funded project developing and applying online tools that integrates information on floods and droughts into Water Resource Management planning across scales, including basin level and local (utility) level).

The Project works with multiple partners in each of three pilot basins, the Chao Phraya in Thailand, Lake Victoria in East Africa and the Volta in West Africa. Additionally, two learning basins, the Danube Basin

and Nile Basin, work closely with the project to share knowledge and experience for the development of methodologies and tools dealing with floods and droughts.

About Decision Support Systems

Decision Support Systems (DSS) are computer-based information systems that support decision-making activities, making it possible to integrate various social, economic, physical and environmental planning parameters to simultaneously take into account the different users and uses of water, as well as accounting for variations in availability due to climate change.

DSSs serve the management, operations and planning levels of an organisation and help people make choices about problems that may be rapidly changing and not easily specified in advance. In the world of water, DSSs have evolved over the past 10 years, typically to better understand river regimes and allowing the analysis of various development and disaster scenarios. Stakeholder cooperation can often be improved by making the decision-making process more transparent and fact-based.

For the FDMT project, the DSS is an easily accessible web-based portal comprised of a number of web-based technical applications that can be used individually but also integrated into a single workflow. This provides stakeholders with access to near real-time satellite data in transboundary river basins to support planning and decision-making for future severe climatic events.

Can data help build resilience to extreme climatic events?

We live in a time of increasingly severe, more frequent and less predictable floods and droughts. Climate change impacts are being felt most strongly through their effects upon water, and water resources are facing unprecedented pressures in all regions of the globe. This is being compounded by a complex mix of urbanisation, a growing global population, changing land use, and increased demand for water from agriculture and industry.

Climate variability, in particular floods and droughts, has a significant effect on the sustainability of water supplies. The status of water resources in our ecosystems is changing, becoming less predictable, and the patterns of the past are no longer reliable indicators of the future. Water service providers face an immense challenge to ensure safe water for consumers as floods and droughts impact on the operation and management of water utilities.

The consequences of these extreme climatic events are frequently devastating for millions of people around the world. Whether the Californian drought affecting one of he most prosperous regions of the planet, or the Bangkok floods affecting an emerging economy, large numbers of communities are at risk. We need to urgently adapt to this reality, building resilience and adapting to future challenges in ways that ensure human wellbeing, economic stability and ecosystem sustainability.

River basins are already experiencing the impacts of climate change. Hydrological uncertainty dramatically increases risks for many countries, affecting the organisations responsible for managing river basins, as well as end-users such as water utilities and industries. These risks are multiplied in transboundary settings, when river basins – often the main source of a country's water supply – are shared between two or more countries where political and economic competition can obscure transboundary water cooperation.

The growing need to recognise and address flood and drought risks, requires us to adopt an approach that facilitates the collection and sharing of information necessary for making informed decisions. Data and information are the basis for any planning activity. Without it we lack a significant tool to address climate change and mitigate its impacts at all scales across river basins.

A fundamental step in this planning depends upon stakeholders having access to these basic data sets. Yet, despite significant progress, for many countries data availability and access is often a key constraint.

A new global partnership, the [Floods and Droughts Management Tools](#) (FDMT) project, addresses these challenges through a web-based portal. This provides access to near real-time satellite data to support planning and decision-making for future severe climatic events. Working in three pilot basins – the Chao Phraya in Thailand, Lake Victoria in East Africa and the Volta in West Africa - the Project is developing online tools to make data available anywhere in the world.

The complexity of planning for, responding to and managing future floods and droughts remains challenging. The methodology and tools developed by the FDMT project, is part of the solution to building understanding, cooperation and resilience in water basins around the world.

Find out more at: http://fdmt.iwlearn.org/en.

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When posting to Twitter don't forget to @ one or more of the key partners to enable re-Tweeting and further sharing of your post, these could include:

> @TheGEF
> @IWLEARN
> @UNEP
> @IWAHQ
> @dhigroup

Or to use the Project hash tag:

> #floodsanddroughts

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Flood and drought events are becoming increasingly common, more severe and less predictable. How is a global partnership addressing the growing risk to water resources in river basins?
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The consequences of extreme climatic events are devastating for millions of people around the world. We need to urgently address this reality by building resilience and adapting to future flood and drought challenges.
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