

# Workshop Concept and Outline

## “Drought Mitigation & Preparedness: Benefits of Action & Costs of Inaction”

Washington, D.C.; 26 and 27 April 2017

**Venue:** World Bank, 1818 H Street, NW Washington, DC 20433

### **Concept:**

#### **Background:**

One of the outcomes of the High-Level Meeting on National Drought Policy (HMNDP) of March 2013, was to highlight key elements in a national drought management policy that countries should try to address in moving from a crisis management approach to a proactive risk management approach in addressing droughts. One of these elements was understanding the cost of inaction and the meeting recommended that there is a need to document the social, environmental, and economic impacts associated with past drought events and understand the cost/benefit relationships between a reactive government policy versus a risk-based government policy directed towards investment in mitigation actions that reduce impacts. This is particularly acute when considering the multiplying forces of poverty, water management challenges, climate change and climate variability.

Drawing on these efforts, the World Bank, the National Oceanic and Atmospheric Administration (NOAA), the World Meteorological Organization (WMO) and the Global Water Partnership (GWP), and other institutions in the context of the Integrated Drought Management Programme (IDMP) are developing a work stream on the costs of inaction and benefits of action, including an analysis of social and environmental losses. This work explores the benefits of actions and the costs of inaction of drought preparedness, which includes the evolution of resilience across time scales, namely how lessons on pro-active drought management have been learned (and which actions were taken) over time and in different sectors. A key consideration is the limit of the steps following a cost-benefit analysis in drought management, which often do not take into consideration obstacles in the transition from crisis management to risk management, such as lack of resources and other more impelling short term problems. It thus focuses not only on the costs of inaction, when considering the benefits of action but also the co-benefits and no/low regret options that make a compelling case for taking drought mitigation and preparedness measures.

#### **Related Activities:**

An Expert Group Meeting was held on this topic in Geneva in September 2016 (report available [here](#)) and a literature review on the Benefits of Action and Costs of Inaction for Drought

Preparedness and Mitigation developed (available [here](#)) to set the stage for the discussions. The findings of these first steps were:

- Progress has been made over the past decade in improving understanding of droughts and their impacts.
- Significant gaps in research, policy and practice remain, particularly regarding the merits of risk management compared with traditional crisis management approaches.
- Many available estimates of drought costs are partial and difficult to compare because of the different methodologies used. The problem is compounded by the lack of data on droughts and their impacts.
- Relatively little knowledge is available on the costs of indirect and longer-term drought impacts.
- There is a lack of mutually compatible methodologies as a means of comprehensively assessing drought costs and impacts.
- Comprehensive evaluations of the costs of action versus inaction against droughts need to be informed by drought risk assessments. They require weather and drought monitoring networks with sufficient coverage, as well as adequate human capacity to analyze and transform this information into drought preparedness and mitigation actions
- **It is recognized that there is a need to build-up the evidence base on this issue as well as the development of compatible methodologies. These items could be carried out through a research project.**

#### **Expected Outcomes of the Workshop:**

- Advance towards compatible methodologies or a framework to assess the benefits of action and costs of inaction for drought mitigation and preparedness
- Develop a work plan towards addressing knowledge gaps to assess the benefits of action and costs of inaction for drought mitigation and preparedness

These actions aim to achieve a better understanding of the drought costs, impact pathways, vulnerabilities, costs and benefits of drought crisis and risk management approaches and the co-benefits of risk management approaches.

## Outline:

### Welcome, Opening and Introduction, Morning, 26 April 2017, 08:45 – 9:05

- **Maria Angélica Sotomayor**, Practice Manager, World Bank (WB).
- **Steven N. Schonberger**, Practice Manager, WB.
- **Roger Pulwarty**, Senior Scientist, National Oceanic and Atmospheric Administration (NOAA).
- **Don Wilhite**, Former Director of the US National Drought Mitigation Center and Integrated Drought Management Programme (IDMP) Chair.

### Part 1, Morning, 26 April 2017, 09:05 – 12:00: Introduction: Understanding the need for being proactive in disaster risk management

#### **1.1 Social, environmental and economic cost of disasters: lessons from other natural hazards. How to assess the impacts and how to convey such information to Policy makers and financial institutions.**

***The benefits of being prepared for disasters.***

**(09:05 – 10:45)**

##### **Lead Speakers:**

- **Mark Svoboda**, Director of the US National Drought Mitigation Center.
- **Stephane Hallegatte**, Lead Economist, GFDRR, WB.
- **Sebnem Sahin**, Senior Environmental Economist, WB.
- **Mira Markova**, Statistics Division, Food and Agriculture Organization of the United Nations (FAO).

##### **Session Moderator:**

- **Nathan Lee Engle**, Senior Climate Change Specialist, WB.

This session will cover:

- Overview on the significant impacts of natural disasters will be provided, emphasizing the methodologies utilized to quantify losses in different fields and levels
- Also, the other face of the coin will be debated, showing studies and experiences proving with figures that appropriate disaster risk reduction saves lives, ecosystems and money
- Overview of the challenges and differences in drought management and introduction of the three pillar approach to integrated drought management on i) drought monitoring and early warning systems; ii) vulnerability and impact assessment; and iii) drought preparedness, mitigation, and response.

#### **1.2 The challenge of measuring Costs of Inaction/ Benefits of drought mitigation and preparedness**

**(10:45 – 12:00)**

**Lead Speakers:**

- **Frederik Pischke**, Senior Programme and Network Officer, Global Water Partnership (GWP).
- **Nicolas Gerber**, Senior Consultant for the Integrated Drought Management Programme (IDMP).

**Session Moderator:**

- **Natalia Limones**, DRM Consultant, WB.

This session will cover:

- The literature review on the Costs of Inaction and Benefits of Action for drought mitigation and preparedness is presented, explaining the challenges and introducing the findings from an Expert Group Meeting on this topic held in September 2016 in Geneva. This will include a discussion on how the benefits of action and the costs of inaction of drought mitigation and preparedness have been evaluated in studies to date as well as an overview of the opportunities and obstacles for a transition from crisis to risk management. This points to several questions: what do we know about the costs of inaction as benchmark, including indirect costs, as well as the benefit of action, including co-benefits? How do we get towards accurate assessments and common methodologies? What are the obstacles and opportunities facing the transition from crisis management to risk management?

**Part 2, Afternoon, 26 April 2017, 12:30 – 17:00: Why being prepared for drought? Some practical experiences**

**2.1 WB experiences building drought resilience: problems and practical solutions encountered (12:30 – 14:20)**

**Lead Speakers:**

- **Satya Priya**, Senior Water Resources Management Specialist, WB.
- **Veronique Morin and Francis Samson**, Senior Disaster Risk Management Specialists, WB.
- **Miriam Muller**, Social Scientist, and **Maria Eugenia Genoni**, Senior Economist, WB.
- **Catherine Signe Tovey**, Program Leader, WB.
- **Raffaello Cervigni**, Lead Environmental Economist, and **Paola Agostini**, Lead Environment Specialist, WB.

**Session Moderator:**

- **Marcus Wijnen**, Senior Water Resources Management Specialist, WB.

This session will cover:

This session aims to share successes, but also failures. The presenters will be WB task teams assessing the costs of inaction and the benefits of action against drought from a

variety of perspectives and approaches. Also, the session will leave the floor to teams that are starting work and could use guidance and teams that are being asked by clients about costing drought impacts and mitigation approaches.

## ***2.2 Learning from the experiences of the IDMP and the Workshops on “Capacity Development to Support National Drought Management Policies”*** **(14:20 – 15:30)**

### ***Lead Speakers:***

- **Don Wilhite**, Former Director of the US National Drought Mitigation Center and IDMP Chair.
- **Mario López Pérez**, National Water Commission, México.

### ***Session Moderator:***

- **Roger Pulwarty**, Senior Scientist (NOAA).

### ***Discussant:***

- **Daniel Tsegai**, Programme Officer at United Nations Convention to Combat Desertification (UNCCD).

This session will cover:

- The importance of costing drought as a necessary step to come up with undisputable information in order to convince the decision makers was stressed repeatedly in the IDMP and Capacity Development Workshops. This session will bring such discussion and other thoughts and ideas extracted from these workshops to the table

## ***2.3 Fragility and conflicts: how drought impacts intensifies instability and vice versa,*** **(15:30 – 17:00)**

### ***Lead Speakers:***

- **Dominick Revell de Waal**, Senior Economist, WB.
- **Moses Mung'oni**, Disaster Risk Management Specialist, WB.
- **Terrence McCabe**, Professor, Department of Anthropology, University of Colorado Boulder.

### ***Session Moderator:***

- **Amal Talbi**, Senior Water & Sanitation Specialist, WB.

This session will cover:

- This session intends to reflect on how the impacts of natural disasters intensify conflict and fragility and on the fact that building resilience to the former can reduce social harm. There are several drivers of problems that sink societies in a vicious circle: when a disaster

occurs, protests grow, governance and management become more difficult, weaknesses towards the phenomenon worsen in a fragile and conflicted society, etc. To sum up, fragility and vulnerability can strengthen each other. This is especially obvious for the particular case of drought because, in places of conflict, water allocation is a common source of social stress, even in conditions of hydrological normality

### Part 3, 27 April 2017, 09:00 – 12:30: Measuring Costs of Inaction/ Benefits of drought mitigation and preparedness

#### 3.1. *Attempts to address the challenge across the World* (9:00 – 11:00)

**Lead Speakers:**

- **Courtenay Cabot**, Senior Consultant.
- **Josué Medellín- Azuara**, Senior Researcher, Center for Watershed Sciences, University of California, Davis.
- **James F. Booker**, Professor of Economics, Siena College.
- **Jeff Connor**, Senior Researcher, University of South Australia.
- **Neville Crossman**, Senior Researcher, University of Adelaide.

**Session Moderator:**

- **Stephane Hallegatte**, Lead Economist, WB.

This session will cover:

- For this session, experts beyond the IDMP/WB direct circle of partners and collaborators can be identified and invited. The intention is that they present their relevant experiences and approaches to measure the Costs of Inaction/ Benefits of Action on drought preparedness

#### 3.2. *Discussion* (11:00 – 12:30)

**Panelists:**

- **Stephane Hallegatte**, Lead Economist, WB.
- **Don Wilhite**, Former Director of the US National Drought Mitigation Center.
- **Frederik Pischke**, Senior Programme and Network Officer, Global Water Partnership (GWP).

This session will cover:

- A long technical discussion between IDMP members, External Invited Experts, World Bank TTL, WB Economists and WB Teams. The idea is to discuss on applicable methodologies to measure the Costs of Inaction/ Benefits of Action for drought mitigation and

preparedness, considering the approached and experiences shared throughout the entire event.

#### Part 4, 27 April 2017, 13:00 – 17:00: Summary and way forward

This part will cover:

- Continuation of the debate on methodologies, focusing in the conclusions obtained and the potential steps forward between IDMP members; dialogue on paths for future collaboration and engagement among international partners to continue exploring and assessing the phenomenon; summary and closure of the event.

## Workshop Partners



### **WORLD BANK GROUP**

The **World Bank Group** is an anti-poverty institution, offering loans, advice, knowledge, and an array of customized resources to more than 100 developing countries and countries in transition. It has set two goals for the world to achieve by 2030: end extreme poverty and promote shared prosperity. It works with country governments, the private sector, civil society organizations, regional development banks, think tanks, and other international institutions on a range of issues—from climate change, conflict, and food crises to education, agriculture, finance, and trade—to meet these two goals.

[www.worldbank.org/](http://www.worldbank.org/)



The **World Meteorological Organization (WMO)** is a specialized agency of the United Nations. It is the United Nations system's authoritative voice on the state and behaviour of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces and the resulting distribution of water resources. WMO has a membership of 191 Member States and Territories.

[www.wmo.int](http://www.wmo.int)



The **Global Water Partnership (GWP)** is an international network whose vision is for a water-secure world. The GWP mission is to advance governance and management of water resources for sustainable and equitable development. The GWP network is open to all organizations that recognize the principles of integrated water resources management endorsed by the network.

[www.gwp.org](http://www.gwp.org)



The **National Oceanic and Atmospheric Administration's (NOAA) National Integrated Drought Information System (NIDIS)** program was authorized by Congress in 2006 (Public Law 109-430) with an interagency mandate to coordinate and integrate drought research, building upon existing federal, tribal, state, and local partnerships in support of creating a national drought early warning information system.

[www.drought.gov](http://www.drought.gov)

## **IDMP**

### **Integrated Drought Management Programme**

The **Integrated Drought Management Programme (IDMP)** was launched by WMO and GWP at the High Level Meeting on National Drought Policies in March 2013. IDMP works with a wide range of partners with the objective of supporting stakeholders at all levels. IDMP provides its partners with policy and management guidance through globally coordinated generation of scientific information and sharing best practices and knowledge for integrated drought management. It contributes to the Global Framework for Climate Services (GFCS), especially regarding the GFCS priority areas of disaster risk reduction, water, agriculture and food security, energy and health. It especially seeks to support regions and countries in developing more proactive drought policies and better predictive mechanisms. This workshop contributes to that objective.

[www.droughtmanagement.info](http://www.droughtmanagement.info)