

# Workstream on the Benefits of Action – Costs of Inaction for drought mitigation and preparedness



# To date:

- WMO, GWP 2017 Working Paper developed by Nicolas Gerber and Alisher Mirzabaev

- 34 IDMP Advisory Committee members 2015 and 2016

- 17 Participants in the IDMP Expert Group Meeting, September 2016

- 40 Participants in the World Bank, NOAA, IDMP Workshop on Drought Mitigation & Preparedness: Benefits of Action and Costs of Inaction, April 2017

<http://www.droughtmanagement.info/idmp-activities/benefits-of-action-and-costs-of-inaction/>



**WORLD METEOROLOGICAL ORGANIZATION**

**Global Water Partnership**

Integrated Drought Management Programme Working Paper No. 1

## Benefits of action and costs of inaction: Drought mitigation and preparedness – a literature review

Nicolas Gerber and Alisher Mirzabaev

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**Abstract**

This review of available literature on the benefits of action and costs of inaction of drought mitigation and preparedness shows that significant progress has been made over the past decade in improving understanding of droughts and their impacts. However, significant gaps in research, policy and practice remain, particularly regarding the merits of risk management compared with traditional crisis management approaches.

The findings highlight the need for mutually compatible methodologies as a means of comprehensively assessing drought costs and impacts. Presently, many available estimates of drought costs are partial and difficult to compare. The problem is compounded by the lack of data on droughts and their impacts. Moreover, relatively little knowledge is available on the costs of indirect and longer-term drought impacts.

The costs of action against droughts are classified into three categories: preparedness costs, drought risk mitigation costs and drought relief costs. This paper reviews several methodologies for making economic drought impact assessments and describes the main obstacles and opportunities facing the transition from crisis management to risk management. It identifies drivers of ex ante and ex post action against drought and highlights actions that are associated with co-benefits beyond drought risk management.

**About the authors**

Nicolas Gerber and Alisher Mirzabaev are economists and senior researchers at the Center for Development Research, University of Bonn, Germany. Both authors are consultants to the Integrated Drought Management Programme (IDMP).

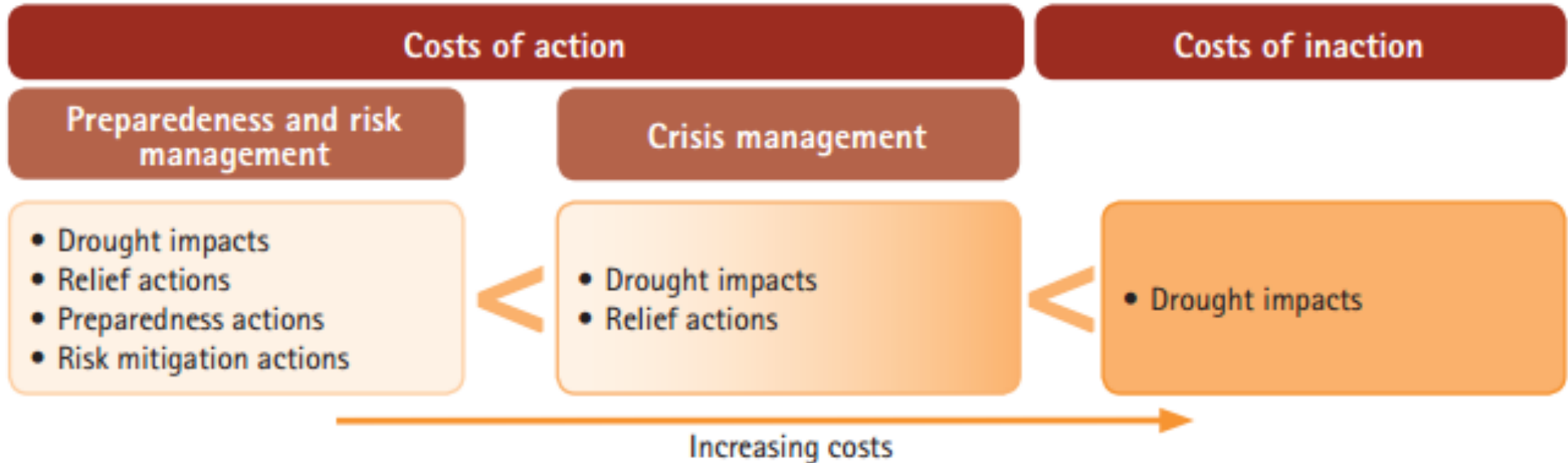
**1. Introduction**

Droughts are major natural hazards and have wide-reaching economic, social and environmental impacts. Their complex, slow and creeping nature; the difficulty of determining their onsets and endings; their site-dependency; and the diffuse nature of their damage (Biswas et al. 2007) make the task of comprehensively and accurately determining the cost of droughts a highly challenging one. These difficulties are compounded by a lack of data on droughts and their impacts (Changnon 2003), especially in low-income countries.

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# Hypothesis: the (social) costs of action are lower than the (social) costs of inaction



Source: WMO, GWP 2017

Supported by evidence: in the US, each \$ spent on drought risk mitigation saves > 2\$ of future disaster costs (FEMA, in Logar & van den Bergh, 2013)

# Message 1: Be Ready

- Opportunity of a drought to propose solutions
- Importance of impact assessment
- Context matters: **The economic argument must understand the political economy to create change**
  - political & governance context; part of development process
  - overcome lack of political will

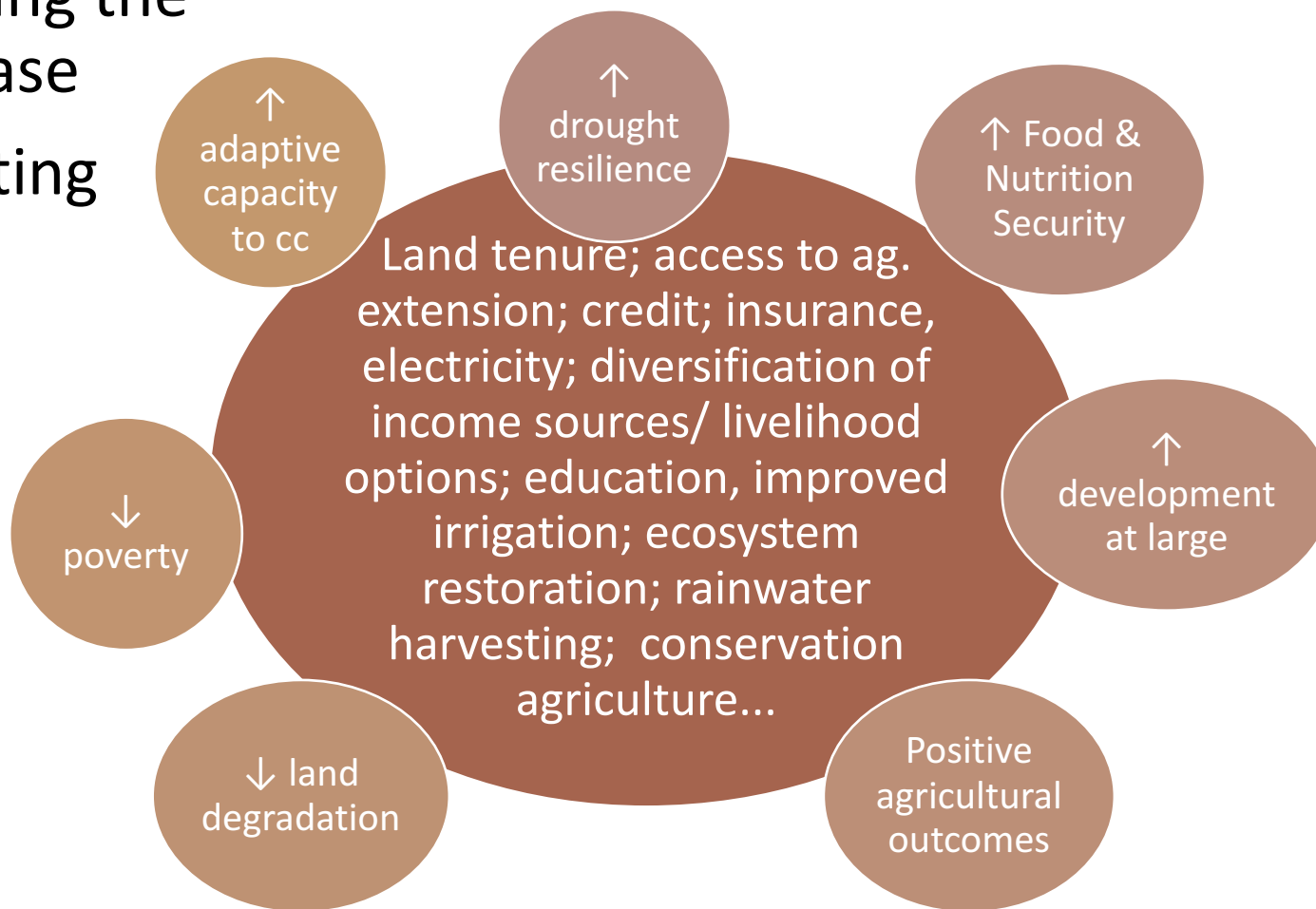
Escape from?



Source: National Drought Mitigation Center, University of Nebraska-Lincoln

# Message 2: Evidence to support

- Strengthening the evidence base
- Link to existing agendas
- Co-benefits



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- Co-be

- Connect to governments where it matters, show 'low-hanging fruits' & socio-economic co-benefits
- Cannot eliminate drought vulnerability - Identify more efficient drought responses and early action

↑  
adaptive

↑  
drought  
resilience

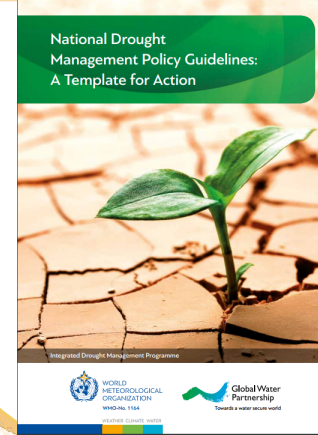
↑ Food &  
Nutrition

↓ land  
degradation

↑  
agricultural  
outcomes

# Message 3: Phased & integrated strategies

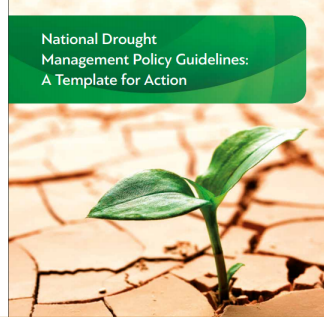
- Need for an organized framework to assess drought risks and analyzing benefits of actions and costs of inaction
- Apply economic argument alongside drought policy guidance
- Comparability across countries and contexts while tailored to specific local requirements



Source: World Meteorological Organization and Global Water Partnership, National Drought Management Policy Guidelines: A Template for Action



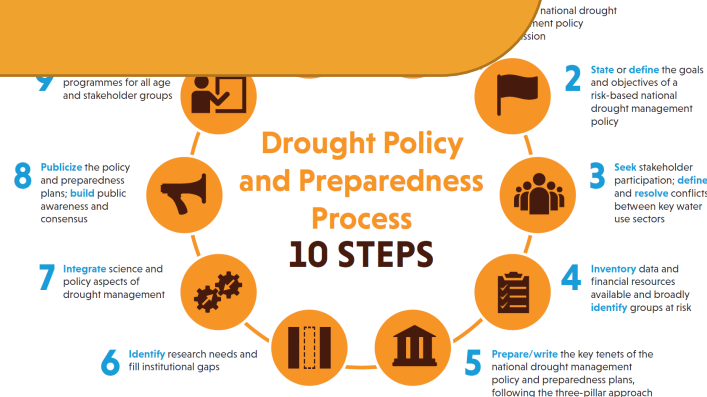
# Message 3: Phased & integrated strategies



→ The economic argument and assessments can support proactive response to drought **BUT numbers alone will not lead to action.**

→ Drought information has no value if it does not lead to management decisions

- National drought management policy
- Assessment
- Action
- Comparability across countries and contexts while tailored to specific local requirements



# BACI - Way forward

- Strengthen **evidence base of co-benefits of DRM** – de-risk investments in drought mitigation / highlight opportunities
- Develop **case studies** – how have lessons on pro-active drought management been learned and which actions taken across sectors – evolution of resilience
- Test, pilot and improve **drought risk** -vulnerability and impact- **assessments**
- Develop comparable methodologies (systematic & modular) and **framework for assessment**
  - Relevant for multiple disciplines and sectors – flexibility and comparability
  - Communications plan for capacity building and planning for action
  - Include examples and case studies on positive outcomes of DRM
  - Address drought as a continuum
  - Economic assessment to account for qualitative and quantitative aspects

→ Discussion paper of World Bank / IDMP

# SWWW event: Changing minds on drought management – the economic case

Tuesday, 28 August, 9:00 – 10:30

Room: FH 202

## Objectives:

- Views on the challenges to shift from drought crisis to drought risk management
- How to motivate proactive action towards drought
- Feedback on next steps and how to expand the evidence base

