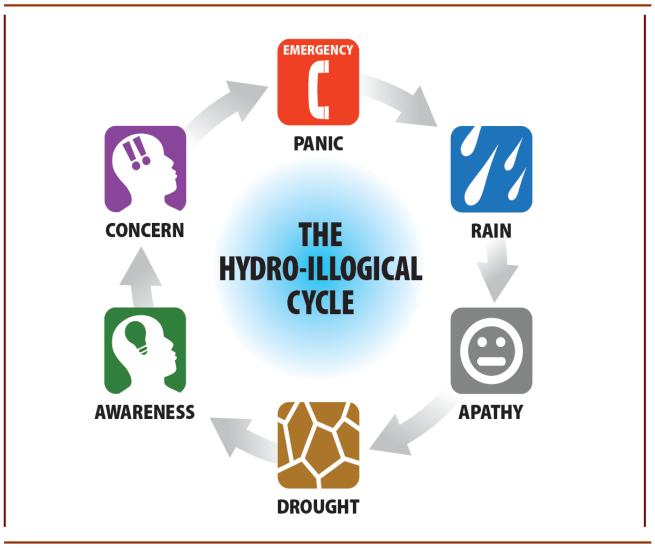
Drought Management:
What could be done differently and by whom? OR How do we break the Hydro-illogical Cycle?

Dr. Donald A. Wilhite
Professor and Director Emeritus
School of Natural Resources
University of Nebraska-Lincoln

International Seminar on Drought and Agriculture: Predict, Plan, Prepare
Sponsored by Islamic Republic of Iran, the Kingdom of the Netherlands and FAO
June 19, 2017

Breaking the Hydro-illogical Cycle:
An Institutional Challenge for Drought Management



Crisis Management

We MUST adopt a new paradigm for drought management!

Promote a shift from managing disasters to managing risk

Seminar Objectives: Increase agricultural resilience to drought, and reduce risk, by advocating an integrated, proactive approach to drought planning, adaptation and management.

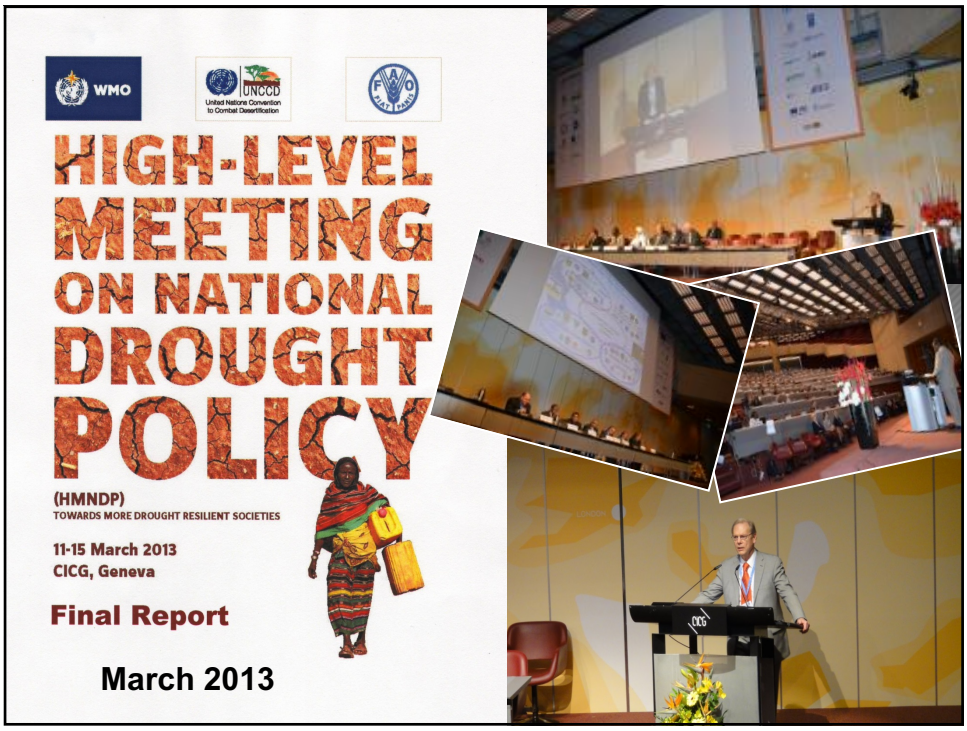
Kick-start a **renewed focus on drought** in relation to climate change and to scale-out upon the knowledge residing in the drought community.

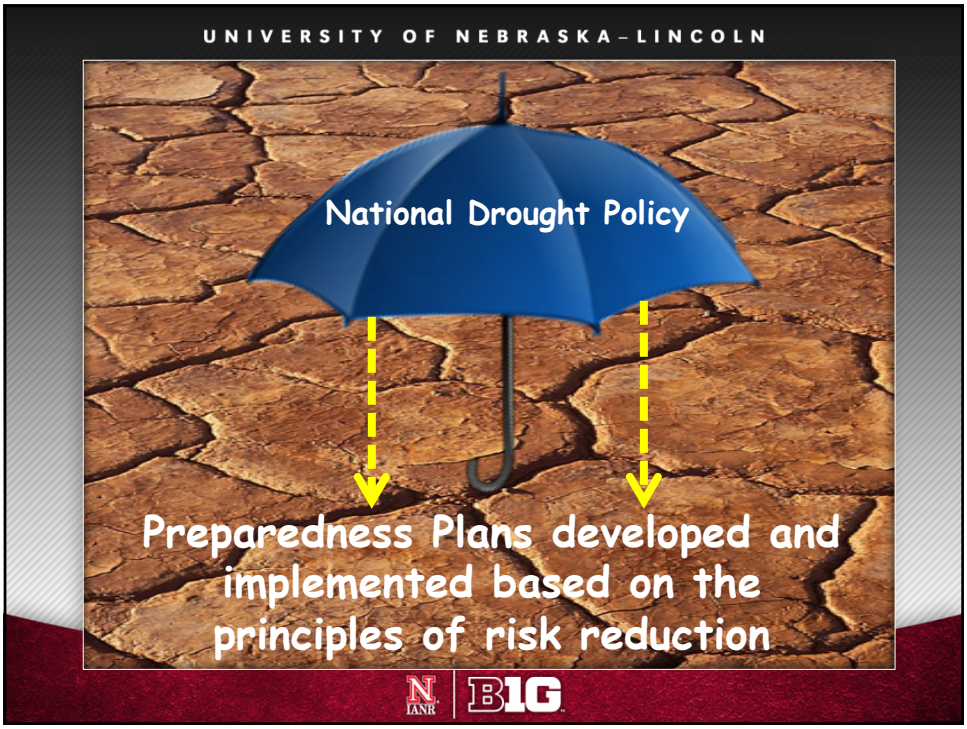
Showcase examples of best practice, **share knowledge and experience** across the global drought community.

Encourage **better links** between political decision-making, technology development, and financing.

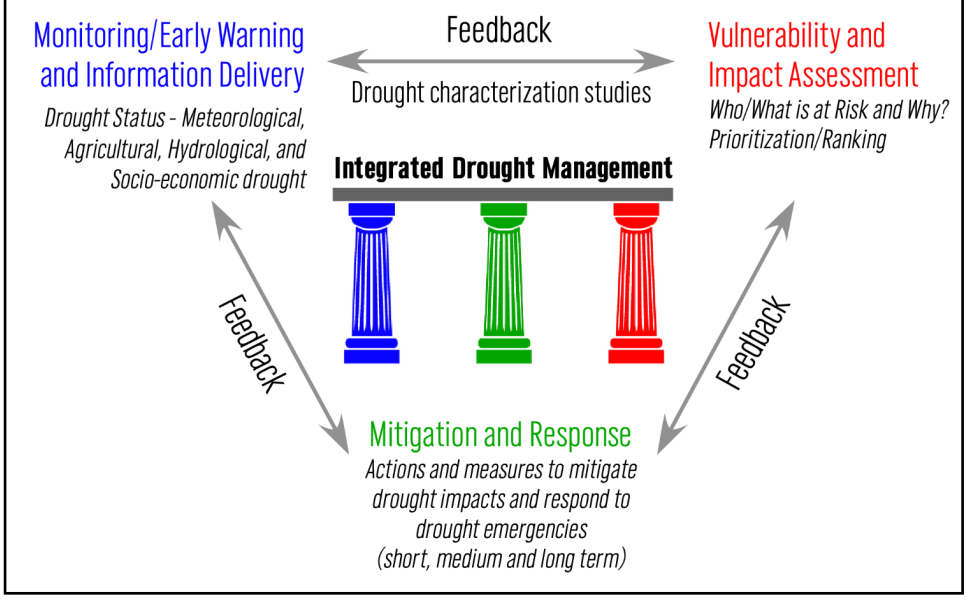
What could be done differently?

- Move from crisis to proactive risk management
- Create comprehensive drought early warning and information delivery systems
- Conduct vulnerability/risk assessments to determine '**who and what is at risk and why**'
- Identify appropriate mitigation actions to reduce current vulnerability/risk
- Incorporate integrated drought management as a key component of climate change adaptation
- **Challenge**: To convince policy makers that drought preparedness and the application of the principles of risk management are worthy of upfront investments?


WMO
UNCCD
United Nations Convention to Combat Desertification
HIGH-LEVEL MEETING ON NATIONAL DROUGHT POLICY
(HMNDP)
TOWARDS MORE DROUGHT RESILIENT SOCIETIES
11-15 March 2013
CICG, Geneva
Final Report
March 2013


UNIVERSITY OF NEBRASKA–LINCOLN
National Drought Policy
Preparedness Plans developed and implemented based on the principles of risk reduction
IANR
B1G

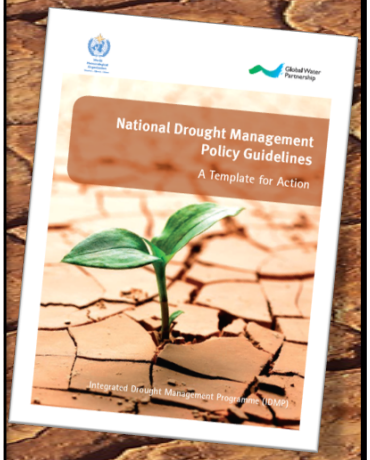
3 Pillars of Drought Policy & Preparedness with Linkages



Lessons Learned and Key Takeaways from Post-HMNDP Activities

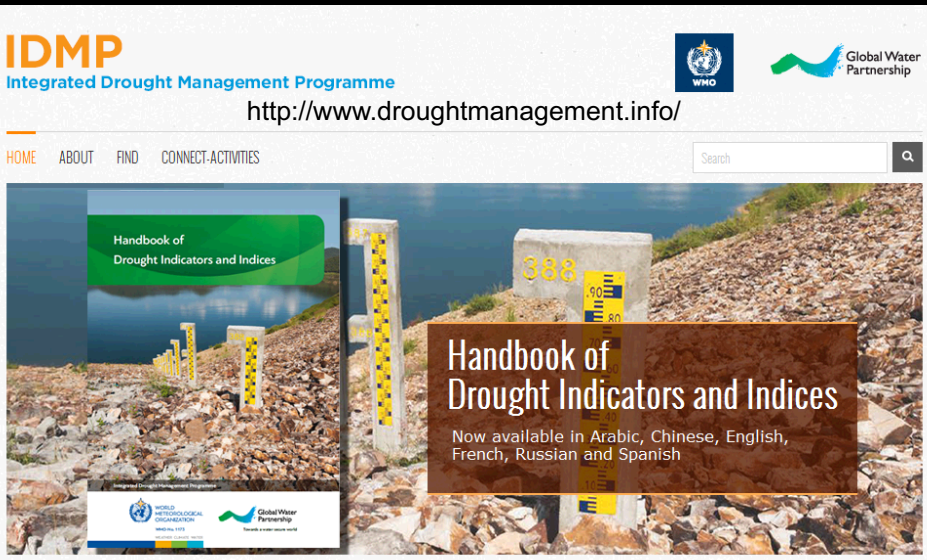
- Need for national drought policy guidelines
- Deficiencies in data networks, data sharing, understanding of indicators and indices
- Need impact assessment/risk assessment methodologies and impact archives
- Integrated drought management based on all aspects of the 3 Pillar approach
- Engage stakeholders
- Assess benefits of action vs. costs of inaction
- Political will essential to change the drought management paradigm

Guidelines for National Drought Policy (IDMP)



- Supports the mission of the Integrated Drought Management Programme (IDMP)
- Promotes proactive drought management and risk reduction
- Proposes a 10-step process for national drought policy development
- Supports the 3 pillar approach for preparedness and policy development:
  - Monitoring/early warning
  - Vulnerability and impact assessment
  - Mitigation, preparedness and response
- Incorporates country-based case studies

Handbook of Drought Indicators and Indices (IDMP)



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

Contents

1. Introduction 1
2. Benefits of action versus costs of inaction: Concepts and methodologies 4
3. Action against drought: Risk management versus crisis management 8
4. From crisis management to risk management: Obstacles and opportunities 10
5. Conclusions and next steps 14
References 15
Acknowledgements 23

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.

Impressive Post-HMNDP Progress

- Continued collaboration between UN agencies
  - 6 regional capacity building workshops—75 developing countries
    - Sponsored by **WMO, FAO, UNCCD, UN-Water & CBD**
  - Launching the Integrated Drought Management Programme (IDMP): **Sponsors: WMO and GWP**
    - Regional projects (Central/Eastern Europe, Horn of Africa, West Africa, South Asia & South America)
  - MENA regional drought management system
    - Cooperative project **w/NDMC, ICBA, FAO**
    - Funding from **USAID** and **FAO** (Water scarcity initiative)
  - National drought programmes emerging

And, by whom? Collaboration at all levels!

- National and subnational governments
  - Key ministries: Met. Services, Water, Environment, Health, Tourism, etc.
- Grassroots organizations/stakeholders
- Regional organizations
- UN agencies
- Development banks
- International development agencies
- Research organizations, ICARDA, etc.

Thematic Sessions

Thematic session 1 - Integrating and aligning water and soil management strategies to maximize response to drought

Thematic session 2 - Connecting farmers to technologies – changing threats to opportunities

Thematic session 3 - Moving from reactive to proactive management in drought emergencies

Thematic session 4 - Mainstreaming drought management in the context of the 2030 Agenda

Thanks for your attention!
Contact Information:
Donald Wilhite
University of Nebraska-Lincoln
dwilhite2@unl.edu