National Drought Policy: Outcomes of HMNDP
(Managing Drought Risk in a Changing Climate)

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Leadership for HMNDP

World Meteorological Organization
Weather • Climate • Water

WMO

Food and Agriculture Organization of the United Nations
for a world without hunger

FAO

United Nations Convention to Combat Desertification

UNCCD
HMNDP Partners

- United Nations Development Programme (UNDP)
- UN-Water Decade Programme on Capacity Development (UNW-DPC)
- United Nations International Strategy for Disaster Reduction (UNISDR)
- Global Water Partnership (GWP)
- International Fund for Agricultural Development (IFAD)
- NOAA

- International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
- International Center for Agricultural Research in the Dry Areas (ICARDA)
- International Human Dimensions Programme (IHDP)
- Inter-American Institute for Cooperation on Agriculture (IICA)
- Joint Research Centre (JRC) of European Commission
- USAID
HMNDP International Organizing Committee
Recent U.S. History: National Drought Policy

- National Drought Mitigation Center, 1995
- Western Drought Coordination Council, 1997
  - National Drought Policy Commission (NDPC)
  - NDPC Report to Congress, 2000
- National Drought Preparedness Act (NDPA)
  - 2001, 2003, 2005
- National Integrated Drought Information System (NIDIS)—a spin-off from NDPA
  - Proof of concept study, 2003-2004 by WGA w/NOAA funding
  - NIDIS bill passes Congress, 2006
  - NIDIS reauthorization, 2013
Rationale for HMNDP

- Global concern about growing magnitude and complexity of drought impacts.
- Link between drought, land degradation, poverty, development and desertification.
- Mounting concern about increasing number of extreme events with links to climate change.
- Shifting frequency, duration and severity of drought resulting from changes in climate variability and climate state.
- Links between drought management and the UNFCCC, GFCS and UNCCD mandate.
Rationale for HMNDP

- Crisis management approach to drought management is ineffective, untimely, poorly coordinated—an issue for least developed, developing and developed countries.
- Many UN agencies, development banks and other organizations share these concerns—drought management, food security, and development are key elements of their missions.
- Lack of national drought policies and emphasis on risk-based management.
Steps to HMNDP

- 16th Session WMO Congress, 2011
- Expert Meeting, Compendium of Best Practices on NDP, George Mason University, 2011
- 1st IOC meeting, Geneva, 2011
- Briefing session, Diplomatic Missions, April 2012
- 2nd IOC meeting, Brasilia, October, 2012
- Rio +20 Side Event, Rio de Janeiro, October 2012
- Meeting with key sponsors to finalize program, November, 2012
Resources Available

- Expert meeting to develop a *compendium of best practices on national drought policy*
  - Promoting standard approaches to *Vulnerability and Impact Assessments*
  - Implementing effective *Drought Monitoring and Early Warning Information Systems*
  - Enhancing *Preparedness and Mitigation Actions*
  - Implementing *Emergency Response and Relief measures that reinforce National Drought Policy*
  - Understanding the *Cost of Inaction*. 
Breaking the Hydro-illogical Cycle: An Institutional Challenge for Drought Management

Crisis Management

If you do what you’ve always done, you’ll get what you’ve always got.

We MUST adopt a new paradigm for drought management!
Drought is widely recognized as a slow creeping natural hazard that occurs as a consequence of the natural climatic variability. In recent years, concern has grown world-wide that droughts may be increasing in frequency and severity given the changing climatic conditions. Responses to droughts in most parts of the world are generally reactive in terms of crisis management and are known to be untimely, poorly coordinated and disintegrated. Consequently, the economic, social and environmental impacts of droughts have increased significantly worldwide. Because of their long-term socio-economic impacts, droughts are by far the most damaging of all natural disasters.

The context of current droughts calls for pro-active future actions to be able to cope with their associated imperatives. Despite the repeated occurrences of droughts throughout human history and their large impacts on different socio-economic sectors, no concerted efforts have ever been made to initiate a dialogue on the formulation and adoption of national drought policies. Without a coordinated, national drought policy that includes effective monitoring and early warning systems to deliver timely information to decision makers, effective impact assessment procedures, pro-active risk management measures, preparedness plans aimed at increasing the coping capacity, and effective emergency response programmes directed at reducing the impacts of drought, nations will continue to respond to drought in a reactive, crisis management mode. To provide this preventive support mechanism to drought-affected societies, the World Meteorological Organization (WMO) launched the Integrated Drought Management Programme (IDMP).

Moreover, in order to address the issue of national drought policy, WMO Congress at its Sixteenth Session held in Geneva in 2011 recommended the organization of a “High-level Meeting on National Drought Policy (HMNDP).” Accordingly, WMO, the Secretariat of the United Nations Convention to Combat Desertification (UNCCD) and the Food and Agriculture Organization of the United Nations (FAO), in collaboration with a number of UN agencies, International and regional organizations and key national agencies, plan to organize the HMNDP in Geneva in March 2013.

In the framework of IDMP activities, the HMNDP will provide practical insights into useful, science-based actions to address the key drought issues being considered by governments and the private sector under the UNCCD and the various strategies to cope with drought. National governments must adopt policies that engender cooperation and coordination at all levels of government in order to increase their capacity to cope with extended periods of water scarcity in the event of a drought. The ultimate goal is to create more drought resilient societies.

**GOALS OF THE NATIONAL DROUGHT POLICIES**

1. Proactive mitigation and planning measures, risk management, public outreach and resource stewardship as key elements of effective national drought policy.
Presentation Outline

• The **ENIGMA OF DROUGHT** — a sense of urgency
  – Drought as hazard, characteristics, definition
  – Hydro-illogical Cycle/Crisis Management

• Our **CHANGING CLIMATE and VULNERABILITY**

• Building **SOCIETAL RESILIENCE**
  – Drought monitoring, early warning and information systems
  – Vulnerability/risk/impacts assessments
  – Mitigation and response measures

• Moving towards a **POLICY FRAMEWORK** that enhances preparedness and risk reduction
  – Integrated Drought Management Programme (IDMP)
  – Compendium of best practices in support of NDP
  – Projected goals and outcomes of HMNDP: Recommendations for Future Actions
Changes in Societal Vulnerability

Drought impacts are more complex today as more economic sectors are affected, creating more conflicts between water users, i.e., \textit{societal vulnerability is dramatically different and changing}.

- Agricultural production
- Food security
- Energy
- Transportation
- Tourism/Recreation
- Forest/rangeland fires
- Municipal water
- Water quality/quantity
- Environment
- Ecosystem services
- Health
Meteorological events (Storms, droughts etc.)
Hydrological events (Flood, mass movement)
Geophysical events (Earthquake, tsunami, volcanic eruption)

Natural Catastrophes Worldwide 1980-2012

Number

Source: Munich Re
Natural Catastrophes Worldwide, 1980-2012

Distribution of insured losses to different perils

Insured losses in 2012 US$: 970bn

Extreme weather events affect the core business of the insurance industry!

- Geophysical events (Earthquake, tsunami, volcanic eruption)
- Meteorological events (Storms, droughts, etc.)
- Hydrological events (Flood, mass movement)
- Climatological events (Extreme temp, drought, forest fire)

Source: Munich Re
Natural Disasters in the U.S. 1980-2011

Number of Events, Annual Totals

Source: MR NatCatSERVICE

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Drought Disaster Designations
October 10, 2012

$16 billion in crop insurance indemnities
Total drought impacts ~ $35-77 billion
Superstorm Sandy ~ $50 billion
Emergency response has a place in drought risk management, but it can also lead to:

- greater vulnerability/decreased resilience to future drought events
- increased reliance on government and donor interventions.
EXPOSURE
- Severity/Magnitude
  - Intensity/Duration
- Frequency
- Spatial extent
- Trends
  - Historical
  - Future
- Impacts
- Early warning

SOCIAL FACTORS
- Population growth
- Population shifts
- Urbanization
- Technology
- Land use changes
- Environmental degradation
- Water use trends
- Government policies
- Environmental awareness

Hazard \( \times \) Vulnerability \( = \) Risk
The Cycle of Disaster Management

Risk management increases coping capacity, builds resilience.

Crisis management treats the symptoms, not the causes.
National Drought Policy Goals

- Proactive mitigation and planning measures, risk management, public outreach and resource stewardship.
- Greater collaboration to enhance the national / regional / global observation networks and information delivery systems to improve public understanding of, and preparedness for, drought.
- Incorporation of comprehensive governmental and private insurance and financial strategies into drought preparedness plans.
National Drought Policy Goals

- Recognition of the importance of a safety net for emergency relief based on sound stewardship of natural resources and self-help at diverse governance levels.

- Coordination of drought programs and response in an effective, efficient and customer-oriented manner.
National Drought Policy

- HMNDP builds on many previous UN initiatives
  - UNCCD, COP 10 UNCCD, WMO’s GFCS, Rio +20, GCOS, FAO water/climate/food mandate, etc.

- HMNDP Declaration
  - Declaration session chaired by the Prime Minister of Niger
  - Unanimously approved by 92 country delegations
HMNDP Plenary Sessions

- Drought monitoring, early warning and information systems
- Drought prediction and predictability
- Drought vulnerability and impact assessment
- Enhancing drought preparedness and mitigation
- Planning for appropriate response and relief within the framework of National Drought Policy
- Constructing a framework for National Drought Policy: The way forward
HMNDP Declaration

Preamble

- Urgency of the problem
- Progress in drought monitoring, early warning, and information systems
- Need for vulnerability and impact assessment
- Need for rapid relief and response
- Need for effective drought policies
HMNDP Declaration

- Encourage all Governments to develop and implement National Drought Policies.
  - develop proactive drought mitigation and planning measures—risk reduction
  - promote greater collaboration to enhance the quality of observation and delivery systems
  - improve public awareness of risk and drought preparedness.
HMNDP Declaration

- Encourage all Governments to develop and implement National Drought Policies . . . .
  - consider economic instruments and financial strategies—risk sharing
  - establish emergency relief plans based on sound natural resources management principles
  - link drought management plans to local and national development plans
HMNDP Declaration

- Encourage all Governments to develop and implement National Drought Policies.
- Urge WMO, UNCCD, FAO and other UN agencies to assist.
- Urge developed countries to assist developing countries in the development and implementation of National Drought Policies.
HMNDP Declaration

- *Encourage* all Governments to develop and implement National Drought Policies.

  - *encourage* the promotion of north-south and south-south cooperation

  - *invite* WMO, UNCCD, and FAO to update the Science and Policy documents and recommendations from HMNDP
Follow-on Actions to HMNDP

- **Integrated Drought Management Programme (IDMP)**
  - Global Water Partnership/WMO initiative

- **Project — Capacity Development to support National Drought Management Policies** (UN-Water, WMO, UNCCD), Bucharest, July 2013

- Soliciting donor support for HMNDP declaration recommendations

- Publication of key papers from HMNDP
IDMP OUTPUTS

The major output from IDMP will be a coherent global framework for drought management, prediction and monitoring by networking new and existing programmes and activities worldwide. The framework will be accompanied by a set of guidelines and tools, including a Drought HelpDesk for the development of sound and appropriate drought policies and management plans by countries and regions, as well as the improved use of drought prediction services. Capacity building and training will be an important aspect of IDMP. IDMP seeks coordination with other relevant international initiatives with the aim of avoiding duplication of efforts, increasing efficiencies in resource use and building on synergies.

WMO

The World Meteorological Organization (WMO), founded in 1950, is a specialized agency of the United Nations for weather, climate, and water. WMO assists Member countries in developing drought monitoring and early warning systems and contributes to understanding the impacts of climate variability/change on agriculture. It also promotes capacity building in the application of meteorological and climatological data and products in assessing the impacts of climate variability/change. www.wmo.int

GWP

The Global Water Partnership (GWP) is an international network open to all organizations working for better water security. Created in 1996 to foster the Integrated Water Resources Management (IWRM) approach, the GWP network comprises 13 Regional and 83 Country Water Partnerships, and a total of over 2800 Partner organizations in 164 countries. www.gwp.org

CONTACT

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Photos by FAO: Prakash Singh, Olivier Asselin, Sia Kamboj, and the World Bank

STRUCTURE OF IDMP

During the initial phase of the IDMP, an Ad Hoc Steering Committee (AHSC) will be created to help guide the programme. Later, an International Management Committee and an Advisory Committee will steer and guide the overall implementation. Membership of these committees will comprise representatives of collaborating partners and technical experts, the latter being invited on an ad-hoc basis. A Technical Support Unit (TSU), based in Geneva, Switzerland, will assist the inception and technical implementation of the IDMP. Following the proven process of the Associated Programme for Flood Management (APFM), sharing the experiences of GWP’s Regional Water Partnerships and providing the scientific basis for managing weather, climate and water extremes through WMO, regional and national drought programmes and projects will be encouraged and evaluated through a Joint Evaluation Panel.
IDMP Objectives

• At global level, the IDMP will contribute to best practices related to drought risk management through:
  – Better scientific understanding of, and inputs for, drought management;
  – Improved knowledge base, with better access to information and products;
  – Drought risk assessment, monitoring, prediction, and early warning;
  – Policy and planning for drought preparedness and mitigation across sectors; and
  – Drought risk reduction and response.
Takeaway Messages

• Climate is changing—climate state and climate variability.

• Extreme climate events are increasing in frequency globally, managing impacts critically important.

• Time is NOW to change the paradigm from crisis to drought risk management.

• Time is NOW for all drought-prone nations to adopt appropriate drought policies that will reduce the impacts of future drought episodes through risk-based management.
Thanks for your attention!

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