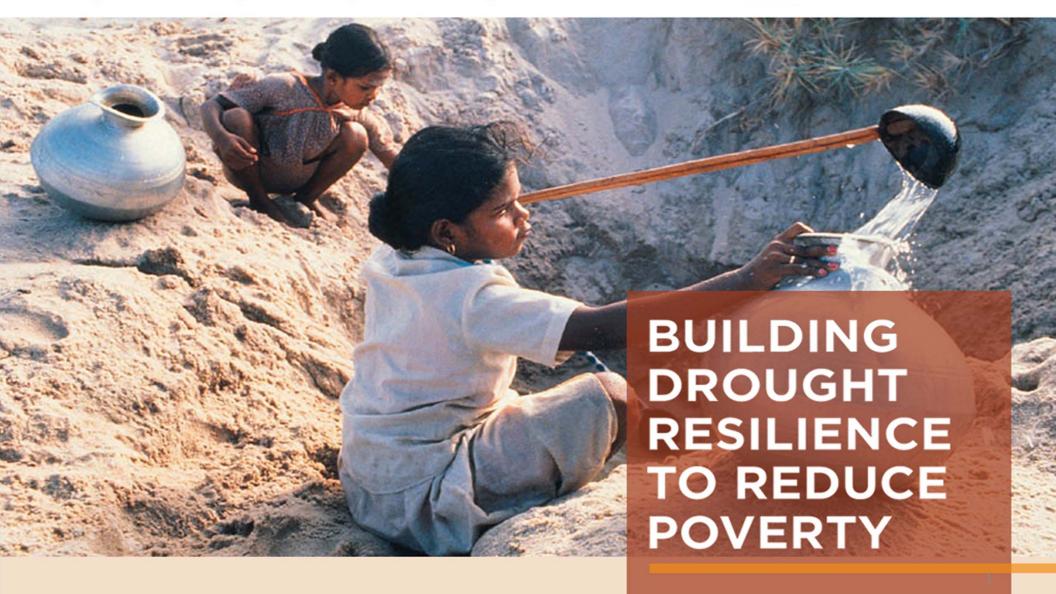
### **IDMP**

#### **Integrated Drought Management Programme**









# World Meteorological Organization

WMO is the United Nations system's authoritative voice on weather, climate and water

WMO has 191 Members and coordinates the activities of the National Meteorological and Hydrological Services (NMHSs) because weather, climate and water know no national or political boundaries.



## **Global Water Partnership**

- A growing international network since 1996
- 13 Regional Water Partnerships
   85 Country Water Partnerships
   3000+ Partners in 178 countries





# Managing Water Extremes



WMO/GWP Associated Programme on Flood Management (APFM) WMO/GWP Integrated Drought Management Programme (IDMP)

- APFM established in 2001
- IDMP established in 2013
- APFM and IDMP provide a technical resource for water management extremes through:
  - Expert Advice (Joint Technical Support Unit of GWP and WMO in Geneva)
  - Guidelines and Tools
  - Project Preparation support
  - Capacity Development
  - Over 20 partners in each programme

# **IDMP Background**

IDMP was launched by WMO and GWP in 2013 at the High-Level Meeting on National Drought Policies (HMNDP) to support implementation of the HMNDP outcomes

[Excerpt of HMNDP final declaration, emphasis added]

- Develop proactive drougth impact mitigation, preventive and planning measures, risk management, fostering of science, appropriate technology and innovation, public outreach and resource management as key elements of effective national drought policy
- Promote greater collaboration to enhance the quality of local/national/regional/global observation networks and delivery systems
- **■** Improve public awareness of drought risk and preparedness for drought
- Consider, where possible [...]risk reduction, risk sharing and risk transfer tools in drought management plans
- Link drought management plans to local/national development policies

# Approach

#### Proactive rather than Reactive:

- Focus on drought prevention, mitigation, vulnerability reduction, planning and preparedness (including monitoring and early warning)
- Consider all aspects of disaster risk management and shift the focus to Risk Management (rather than crisis management)

#### Horizontal Integration:

- Draws on the principles of Integrated Water Resources Management
- Bring together partners from different disciplines and sectors to find solutions (sectoral approaches from the past are limited in reducing drought impacts)
- Highlight approaches to Integrated Drought Management of its partners, with a spirit that more can be achieved working together

#### Vertical Integration:

- Connects and exchanges experiences among the global, regional, national and local level
- Principles of Integrated Drought Management are adapted to the context applied

# Approach

#### ■ Knowledge Sharing – "Clearinghouse of Information":

- Connect knowledge providers with those seeking knowledge (IDM HelpDesk)
- Provide entry points to understand and apply the principles of Integrated Drought Management, pointing as much as possible to existing knowledge (see National Drought Management Policy Guidelines)
- Rather than producing new scientific/ highly technical knowledge, the IDMP closes gaps in knowledge and in communicating/applying existing knowledge

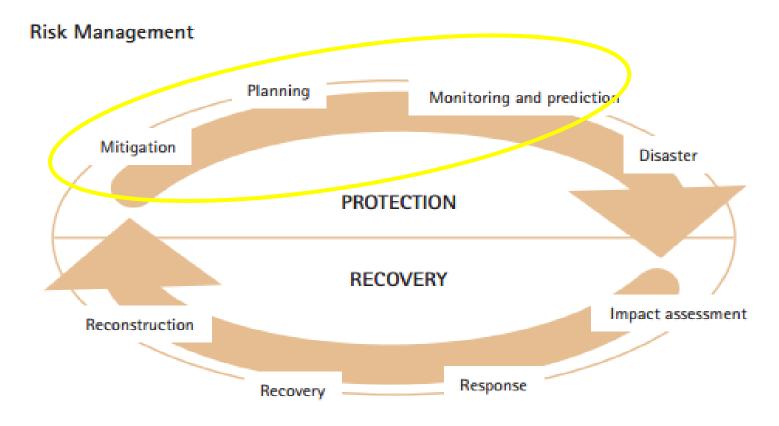
#### Demonstration Projects:

- Innovation applying the principles of Integrated drought management
- Build on existing efforts that are scalable and make a significant contribtion to building drought resilience through an integrated approach

#### Develop Capacities:

 Through the above and closing gaps where necessary through trainings that add value and collaboration with partners

## The cycle of disaster management



Crisis Management

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

# Components

IDM at Regional and National Level

Knowledge and Awareness

Innovative Practices

Capacity Development

Governance and Partner Engagement

# Part of the Global Framework for Climate Services

#### **GFCS Goal:**

Enable better management of the risks of climate variability and change and adaptation to climate change at all levels, through development and incorporation of science-based climate information and prediction into planning, policy and practice.

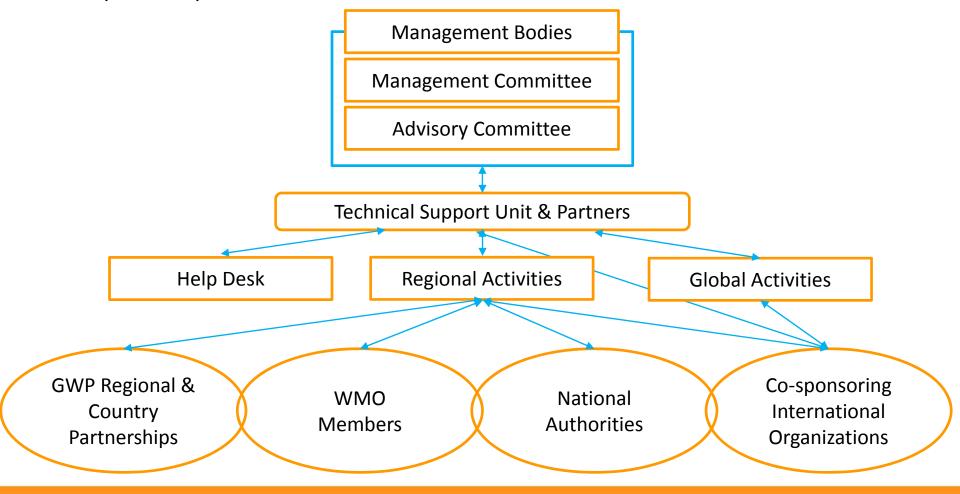
#### **GFCS Priority Areas:**

Agriculture; Disaster Risk Reduction; Water; Health; Energy

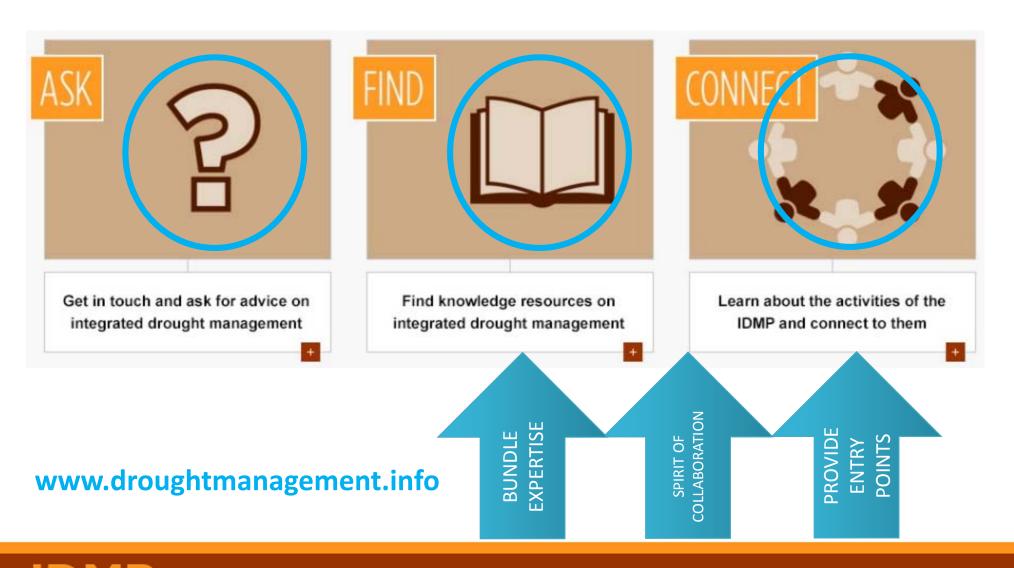


### **Governance Structure**

Updated Operational Guidelines



## **Integrated Drought Management Helpdesk**







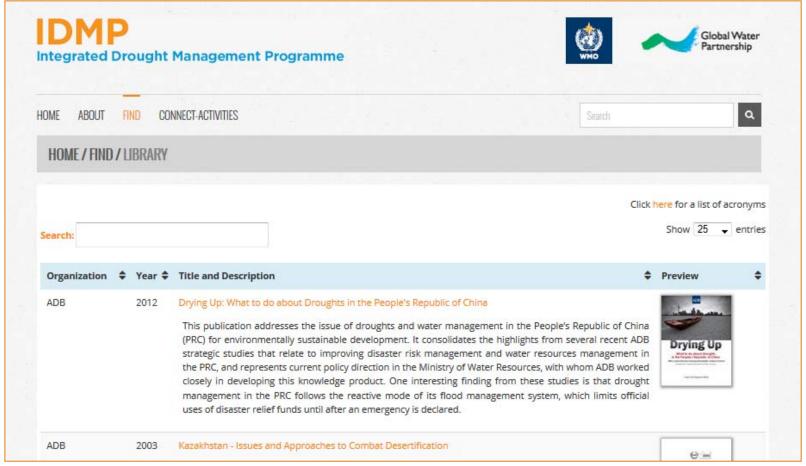
## **Partners**

- AEMET Spanish Meteorological Agency
- Australian Bureau of Meteorology
- CONAGUA Mexico's National Water Commission
- FAO Food and Agriculture Organization of the United Nations
- FEWS NET Famine Early Warning Systems
  Network
- UNCCD United Nations Convention to
  Combat DesertificationUN CBD UN
  Convention on Biological Diversity
- George Mason University Global Environment and Natural Resources Institute
- ICARDA International Center for Agricultural Research in the Dry Areas
- ICID International Commission for Irrigation and Drainage
- IMTA Mexican Institute of Water Technology
- IWMI International Water Management Institute

- JRC Joint Research Centre
- SEI Stockholm Environment Institute
- NDMC U.S. National Drought Mitigation Center
- NIDIS U.S. National Integrated Drought Information System
- UNDP Cap-Net
- UNDP United Nations Development Programme
- UNESCO United Nations Educational, Scientific and Cultural Organization
- UNEP United Nations Environment Programme
- UNISDR United Nations Office for Disaster Risk Reduction
- University of Nebraska Daugherty Water for Food Institute
- University of Southern Queensland
- UNU Flores
- World Bank



# Drought Management Library

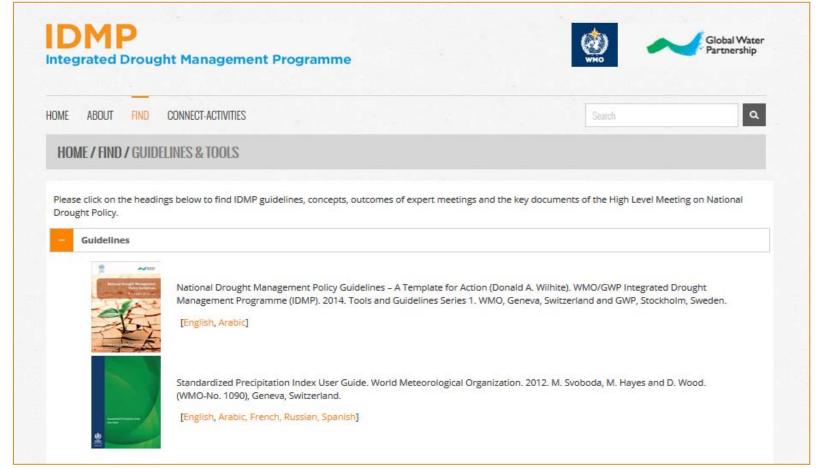


www.droughtmanagement.info/library





#### **Guidelines and Tools**



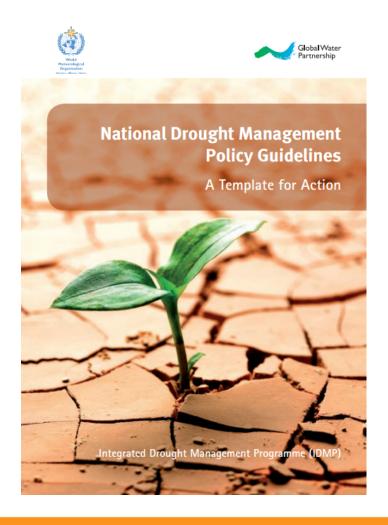
www.droughtmanagement.info/find/guidelines-tools





## **Policy Guidelines**

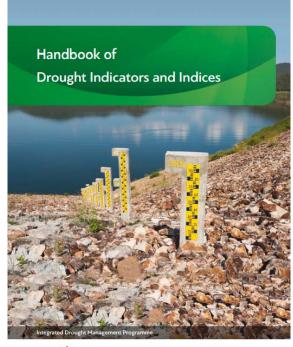
- Adapting of 10-step process by Don Wilhite (National Drought Mitigation Center at the University of Nebraska-Lincoln)
- Response to need articulated at High-level Meeting on National Drought Policy (HMNDP)
- Template that can be adapted to national realities and needs
- Building on existing risk management capacities





# Handbook of Drought Indicators and Indices

- Handbook is a resource to cover most commonly used drought indicators/indices
- A starting point to describe and characterize the most common indicators and indices and their applications
- Does not recommend a "best" set of indicators and indices, given research requirements for appropriate application in location in question.









# Forthcoming: Integrated Drought Management Framework Document

- To serve as the intellectual framework of the concept of integrated drought management.
- Synthesis of existing publications around the topic to define the concept and explain approaches to integrated drought management
- Put the principles agreed at the High Level Meeting on National Drought Policies into practice
- First draft developed and comments from 16 partners received.



# Benefits of Action vs Cost of Inaction for Drought Preparedness

- Work stream on the costs of inaction and benefits of action of drought preparedness, including an analysis of social and environmental losses.
- Explores how lessons on pro-active drought management have been learned (and which actions were taken) over time and in different sectors.
- Consideration of obstacles in the transition from crisis management to risk management, such as lack of resources and other more impelling short term problems.
- Not only focuses on the costs of inaction, but also more short term benefits that make a compelling case for taking preventive measures.
- <u>Literature Review conducted Expert Group Meeting</u> <u>held mid-September</u>
- Working Paper planned



## **Activities**





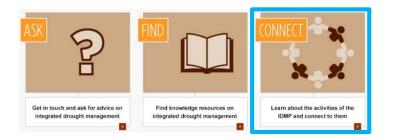
#### **Case Studies**

Under development to highlight actions that put an integrated approach to drought management into action

## Case Study Guidelines available; Topics for case studies (from HMNDP Science Document):

- Promoting standard approaches to vulnerability and impact assessment
- Implementing effective drought monitoring and early warning systems
- Enhancing preparedness and mitigation actions
- Implementing emergency response and recovery measures that reinforce national drought management policy goals
- Understanding the cost of inaction
- Case studies on Natural Small Water Retention Measures and their application in <u>Poland, Slovakia, Hungary, and Slovenia</u> recently released by IDMP CEE
- National Drought Management Policies in Brazil, Mexico, Morocco and USA
- Currently under development are cases in <u>Brazil</u>, <u>Ethiopia</u>, <u>India</u>, <u>Kenya</u>, <u>Philippines</u>, <u>Uganda</u>

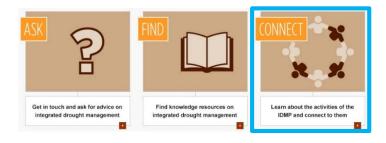




# Regional programmes and initiatives

Support action and implementation on the ground, adding to existing efforts the strength of IDMP and its partners

- Central and Eastern Europe (2013): Bulgaria, Czech Republic, Hungary, Lithuania, Moldova, Poland, Romania, Slovakia, Slovenia, Ukraine
- Horn of Africa (2014): Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda.
- West Africa (2015): First in Burkina Faso, Niger and Mali, and then share lessons learned with other neighbouring countries through the WMO partners, GWP Country Water Partnerships and other partners.
- South Asia Drought Monitoring System (2014): with IWMI in Afghanistan, Bhutan, Bangladesh, Nepal, India, Pakistan and Sri Lanka
- Central America (2013): Regional workshop leading to training on SPI and assessment of current drought.
- South America (2015): Regional workshop in Bolivia leading to follow-up activities with partners on drought management planning and monitoring.



# **Example: IDMP Central and Eastern Europe**

Implementation: executed by GWP CEE; started in June 2013; 64 agreements with 28 institutions.

Fundraising for continuation beyond 2015 ongoing.

#### Focus:

- Awareness raising
- National Drought Policies/ Action Plans:
  - Guidelines for preparation of the drought management plans within river basin management plans according to EU Water Framework Directive
  - National consultation dialogues to discuss preparation of drought management plans
- Drought monitoring platform with information for the region on the status of drought (enhancing existing web-based platform)
- Demonstration projects testing innovative solutions for better resilience to drought
- Capacity building trainings and workshops on national and regional levels
- Documentation: Compendium of good practices



- GUIDELINES -







# Example: IDMP Horn of Africa (IDMP HOA)

Implementation: executed by GWP Eastern Africa in 2015

MoU with IGAD with close links to IDDRSI

Impact/	Improved drought resilience of communities and ecosystems in the
Goal	Horn of Africa through managing water resources

#### Outcome

1. Collaborative drought management programs and actions

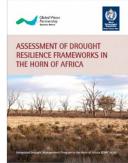
**Outputs** 

c. Enhanced partnership for drought management in the HOA

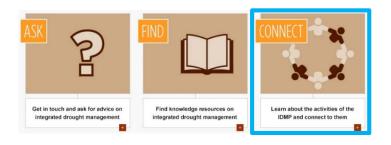
a. Enhanced capacities for drought management in the HOA



- 2. High priority & commitment for implementing IDM as part of national development plans
- b. Innovative approaches of drought management demonstrated and scaling-up plan developed
- d. water resources
  management
  approaches
  integrated into
  drought
  management
  policies/programs in
  countries of the HOA







# South Asia Drought Monitoring System

#### A collaboration of GWP-WMO-IWMI as part of IDMP

- Regional Drought Monitoring System to support regionally coordinated drought mitigation efforts that can be further tailored to the national level
- Moving from crisis management to risk management
- User ownership through GWP South Asian Regional Water Partnership with the Country Water Partnerships in Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka to work with relevant actors from Government, research and civil society in the region to ensure the system addresses needs.
- Technical development by CGIAR International Water Management Institute integrating remote sensing and ground truth data (vegetation indices, rainfall data, soil information, hydrological data)
- Government support through WMO Climate Outlook Fora, Regional Climate Centers and HydroMet Services as platforms for knowledge exchange and user involvement

# SASCOF and User Consultation in SA DMS Development

■ 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> South Asian Climate Outlook Forum in in Pune, India; Dhaka, Bangladesh and Colombo, Sri Lanka

#### **Recommendations**

- I Keep the input data simple and ensure that there is an understanding on what basis drought risks are being generated for SA DMS to gain acceptance by users
- Involvement and ownership of government agencies and users from the beginning in SA DMS development
- Include ground verification of the results include in-situ data
- Uncertainty to be communicated clearly to users
- Efforts are made to include the outputs of the SASCOF as well as any National Climate Outlook Forums
- SADMS to have the potential to be used as a South Asia Drought Early Warning System



## **National initiatives**

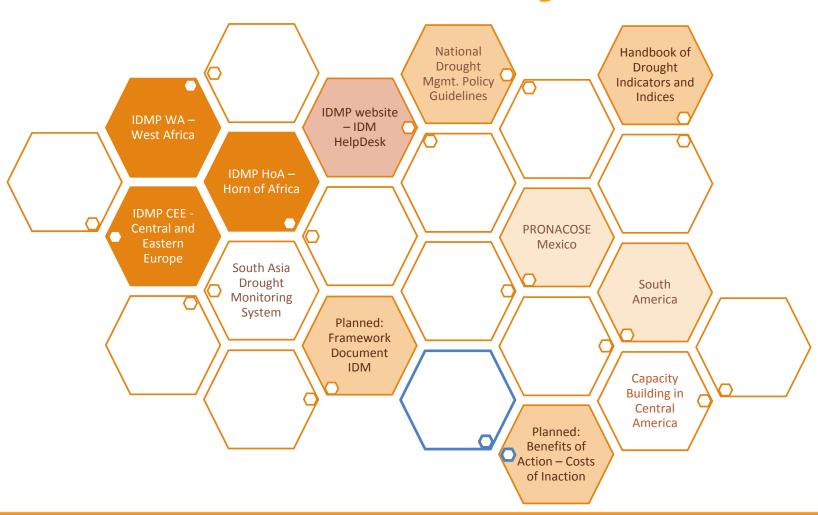
#### ■ PRONACOSE Mexico:

- National Program against Drought (PRONACOSE) slated to run for the next 6 years in Mexico's 26 basin councils
- IDMP will provide technical advice, capacity building, project management and links to international expertise and platforms
- Work Programme has been developed as part of the WMO/CONAGUA PREMIA project.

#### ■ Support to Turkish Government:

- In line with the recommendations of the HMNDP (March 2013), the Government of Turkey through the Turkish State Meteorological Service (TSMS) started a process to formulate a national policy on drought management
- IDMP requested to provide guidance and international expertise
- IDMP contributes technical guidance and experiences from the Mexican PRONACOSE and the IDMP Central and Eastern Europe.

# Summary



## For further information

