

# Integrated Drought Management Programme

## Guidance on drought management plans and tools

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In cooperation with many IDMP partner organizations



# HIGH-LEVEL MEETING ON NATIONAL DROUGHT POLICY

(HMNDP)  
TOWARDS MORE DROUGHT RESILIENT SOCIETIES

11-15 March 2013  
CICG, Geneva

Final Report



# IDMP Background

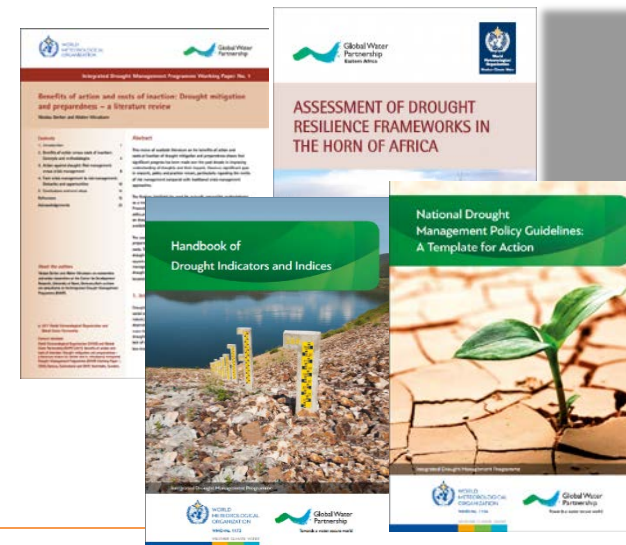
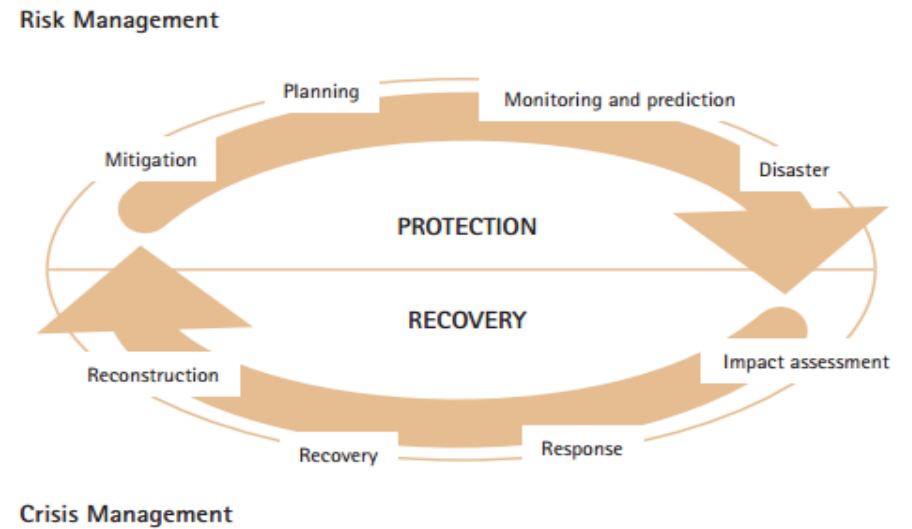
IDMP was launched by WMO and GWP in 2013 at the High-Level Meeting on National Drought Policies (HMNDP) to support implementation of the HMNDP outcomes

[Excerpt of HMNDP final declaration, emphasis added]

- Develop **proactive drought 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**

# IDMP Approach

- Proactive rather than Reactive
- Horizontal Integration
- Vertical Integration
- Knowledge Sharing – “Clearinghouse of Information”
- Demonstration Projects
- Develop Capacities



# Applications in 3 Pillars of Integrated Drought Management



# Integrated Drought Management Helpdesk

The interface features three main functional areas, each with an icon and a description:

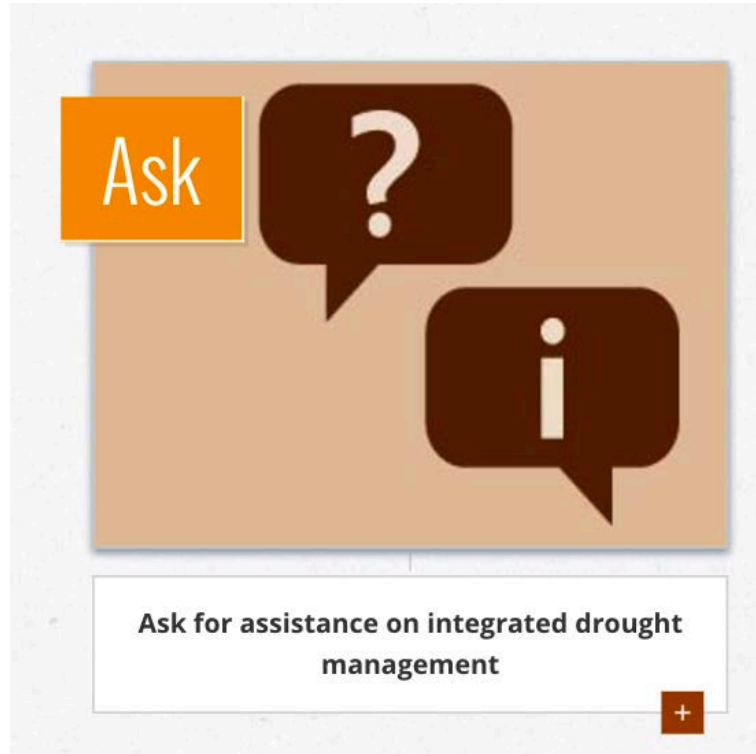
- Ask:** Represented by two speech bubbles, one with a question mark and one with an information symbol. Below it, the text reads: "Ask for assistance on integrated drought management".
- Find:** Represented by a magnifying glass icon. Below it, the text reads: "Find knowledge resources on integrated drought management".
- Connect:** Represented by an icon of five stylized human figures holding hands in a circle. Below it, the text reads: "Learn about the activities of IDMP and connect to them".

Each of these three sections has a small brown square with a white plus sign in the bottom right corner. At the bottom of the entire interface is a blue banner with the text: [www.DroughtManagement.info](http://www.DroughtManagement.info)

# IDMP 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 Desertification UN 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

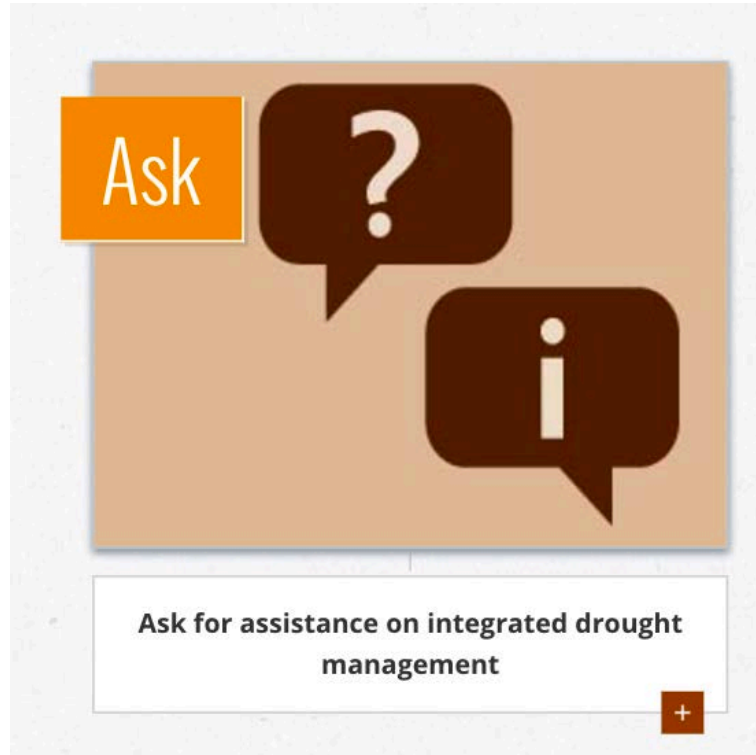
# Integrated Drought Management Helpdesk



## Request Assistance

The screenshot shows the IDMP website's "Request Assistance" form. At the top, the IDMP logo and "Integrated Drought Management Programme" are on the left, and the UN and Global Water Partnership logos are on the right. A navigation menu includes "HOME", "ABOUT", "ASK", "FIND", and "CONNECT-ACTIVITIES". A search bar is on the right. Below the navigation is a breadcrumb trail: "HOME / ASK / REQUEST ASSISTANCE". The main heading is "Ask a question" with the subtext "You may ask a question to experts using this form..". The form fields are: "Given name" (with example "John"), "Family name" (with example "Smith"), "Email \*" (required), "Name of Organisation \*" (required), "Website", "Subject \*" (required), and "Question / Request \*" (required). A note states: "Your e-mail address will not be made public. It will only be used for communications regarding your question."

# Integrated Drought Management Helpdesk



## Sample Questions

**IDMP**  
Integrated Drought Management Programme

HOME ABOUT **ASK** FIND CONNECT-ACTIVITIES

HOME / ASK / SAMPLE REQUESTS

### Who can benefit from the HelpDesk?

Advice is being offered primarily to government bodies responsible for drought management. Also civil society organizations, the private sector and academia can contact us for support in developing an all-of-society engagement to advance integrated drought management. Examples of questions the HelpDesk is receiving are provided below.

- Agrometeorologist at National Weather Service**  
**Scenario:** Individual is developing new drought products for weekly agrometeorological bulletin.  
**Question:** Which drought indices are best to determine the impacts of drought on crop yields?
- Chief of Staff at Ministry of Environment**  
**Scenario:** Recent droughts have had major impacts on the economy. The Prime Minister has requested country to develop a new policy  
**Question:** How does a country start developing a national drought policy?
- Staff Member at National Hydrological Service**  
**Scenario:** Recent drought has reduced hydropower generation.  
**Question:** Which drought indices are best to determine the impacts of drought on river flows and reservoir levels?
- Meteorologist at National Weather Service**  
**Scenario:** Individual is developing a map of drought indices.  
**Question:** Can you send the computer source code or software to calculate the Standard Precipitation Index?



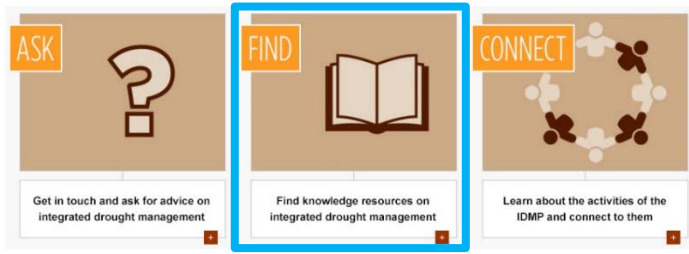
# Integrated Drought Management Helpdesk



The image displays a user interface for the Integrated Drought Management Helpdesk, organized into three main functional sections. Each section is represented by a card with a title, an icon, a description, and a plus sign for expansion.

- Ask:** Features a question mark and an information 'i' icon. The description is "Ask for assistance on integrated drought management".
- Find:** Features a magnifying glass icon. The description is "Find knowledge resources on integrated drought management". This section is highlighted with a blue border.
- Connect:** Features an icon of people holding hands in a circle. The description is "Learn about the activities of IDMP and connect to them".

At the bottom of the interface, a blue banner contains the website address: [www.DroughtManagement.info](http://www.DroughtManagement.info)



# Drought Management Library

**IDMP**  
Integrated Drought Management Programme

WHO Global Water Partnership

HOME ABOUT **FIND** CONNECT-ACTIVITIES

HOME / FIND / LIBRARY

Search:

Click [here](#) for a list of acronyms

Show 25 entries

Organization	Year	Title and Description	Preview
ADB	2012	<b>Drying Up: What to do about Droughts in the People's Republic of China</b> This publication addresses the issue of droughts and water management in the People's Republic of China (PRC) for environmentally sustainable development. It consolidates the highlights from several recent ADB strategic studies that relate to improving disaster risk management and water resources management in the PRC, and represents current policy direction in the Ministry of Water Resources, with whom ADB worked closely in developing this knowledge product. One interesting finding from these studies is that drought management in the PRC follows the reactive mode of its flood management system, which limits official uses of disaster relief funds until after an emergency is declared.	
ADB	2003	<b>Kazakhstan - Issues and Approaches to Combat Desertification</b>	

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



# Guidelines and Tools

**IDMP**  
Integrated Drought Management Programme

WMO Global Water Partnership

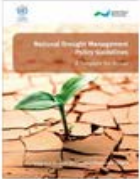

HOME ABOUT **FIND** CONNECT-ACTIVITIES

Search

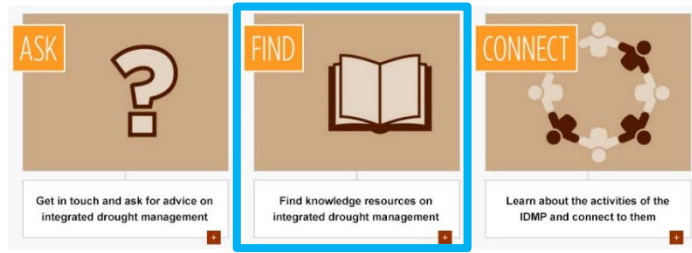
HOME / FIND / GUIDELINES & TOOLS

Please click on the headings below to find IDMP guidelines, concepts, outcomes of expert meetings and the key documents of the High Level Meeting on National Drought Policy.

**Guidelines**

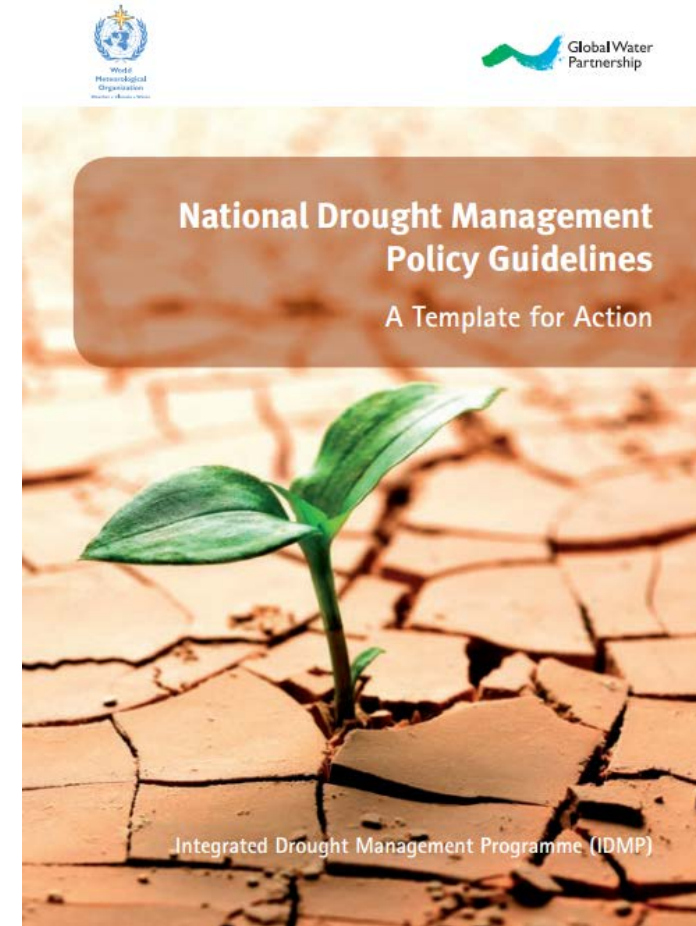
-  National Drought Management Policy Guidelines – A Template for Action (Donald A. Wilhite). WMO/GWP Integrated Drought Management Programme (IDMP). 2014. Tools and Guidelines Series 1. WMO, Geneva, Switzerland and GWP, Stockholm, Sweden.  
[English, Arabic]
-  Standardized Precipitation Index User Guide. World Meteorological Organization. 2012. M. Svoboda, M. Hayes and D. Wood. (WMO-No. 1090), Geneva, Switzerland.  
[English, Arabic, French, Russian, Spanish]

[www.droughtmanagement.info/find/guidelines-tools](http://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**

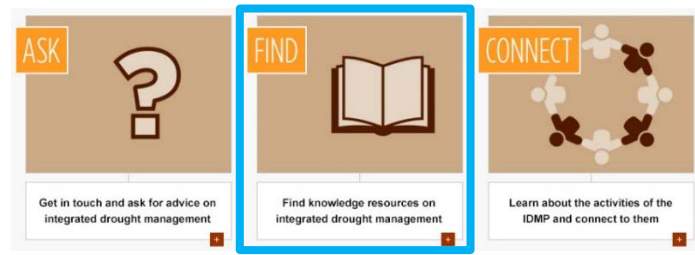


# Objectives of National Drought Management Policies

- To encourage vulnerable economic sectors & population groups to adopt **self-reliant measures** that promote risk management
- To **promote sustainable use** of agricultural & natural resource base
- To facilitate **early recovery from drought** through actions consistent with national drought policy objectives
- It **can be a stand-alone policy or part of national policy for disaster risk reduction** that is centered on the principles of risk management (UNISDR, 2009)

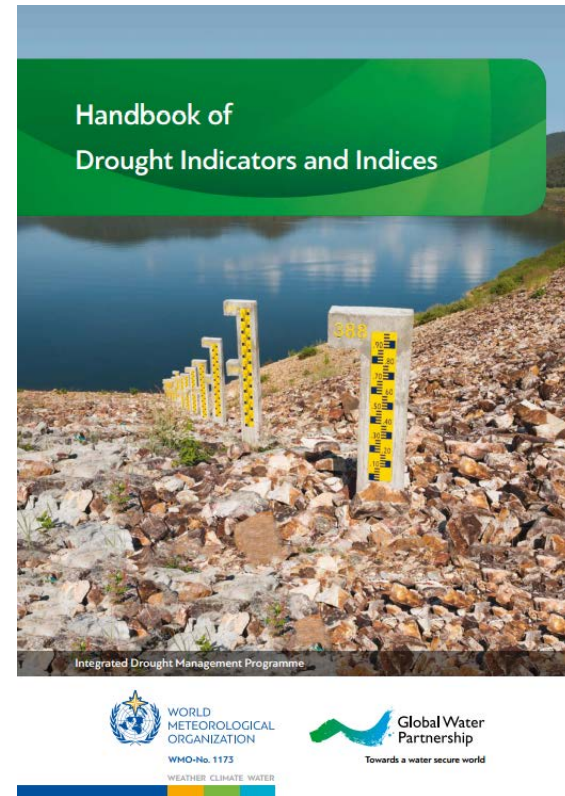
## ...and some pointers:

- It is **one approach** to assist nations with NDP process
- It **should be modified/adapted** according to local conditions
- Requires **political will and coordinated approach**; diverse stakeholders must be engaged in the process.
- It has been fundamental in guiding drought mitigation and preparedness plans in the USA, Brazil, Mexico, Morocco, among others.



# 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.



# Selecting drought indicators and indices

- Timely detection of drought to trigger appropriate communication and coordination to mitigate or respond
- Sensitivity to climate, space and time to determine drought onset and termination
- Responsive to reflect drought impacts occurring on the ground
- Which indicators/indices and triggers to use for going into and coming out of drought
- Data for indices/indicator available and record consistent
- Ease of implementation? (Human, institutional and financial capacity available)



# Benefits of Action and Costs of Inaction for Drought Mitigation and 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.
- Expert Group Meeting held mid-September 2016 in Geneva, workshop with World Bank held in April 2017 in Washinton DC
- Literature Review released 2017
- World Bank White Paper under development



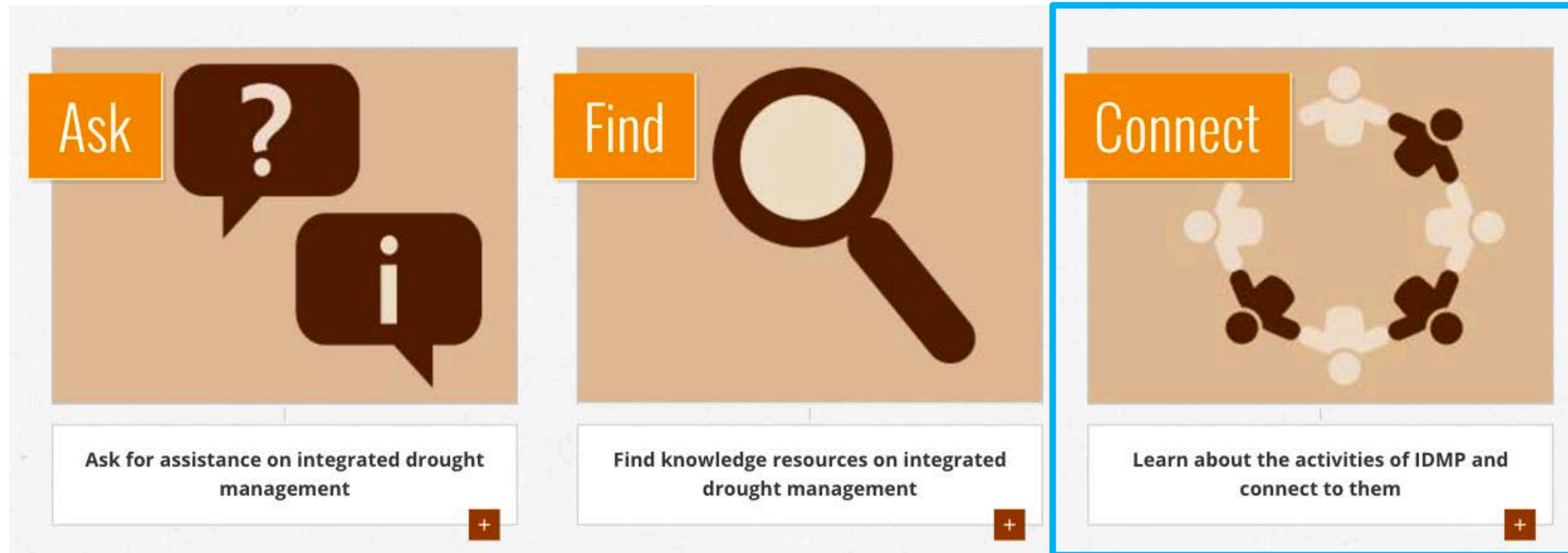


# Drivers of and barriers to drought risk management



Drivers	Barriers
↑ frequency, severity & socio-economic costs	Path dependency, Size of up-front costs in multi-year events (e.g. Brazil)
↑ awareness of efficiency of drought risk management, evidence on co-benefits	Information failure on: occurrences, impacts, costs/benefits of drought risk management
↑ burden of drought relief costs on budgets	Market failure (credit constraints)
Past shocks	Economic rationality of ex-ante action (uncertainty and irreversibility)
Evidence	Negative externalities of preparedness plans
	Institutional failure (no direct costs of drought to government)

# Integrated Drought Management Helpdesk



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

# Integrated Drought Management Helpdesk



## Activities

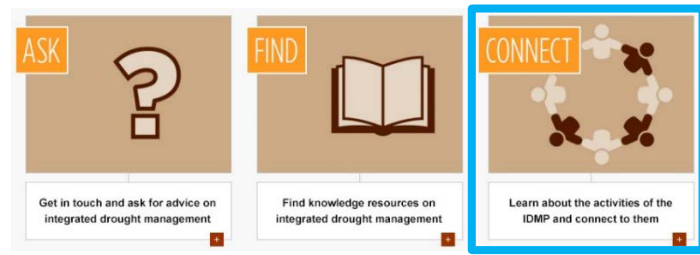
**IDMP**  
Integrated Drought Management Programme

HOME ABOUT ASK FIND **CONNECT ACTIVITIES**

HOME / ACTIVITIES

The map below shows the areas where the IDMP is active to date. Please click on the markers on the map to find out more and link to more detailed information.

- Regional activities:** The IDMP has three regional programmes in Central and Eastern Europe (IDMP CEE), in the Horn of Africa (IDMP HoA) and in West Africa (IDMP WAF). There are regional initiatives also going on in South Asia and Central America. Click on the dots on the map to find out more.
- National activities:** There are a number of efforts at the national level supported by the IDMP. Click on the dots on the map to find out more.
- WMO and GWP:** The Integrated Drought Management Programme is a joint initiative of the World Meteorological Organization (WMO) and the Global Water Partnership (GWP).



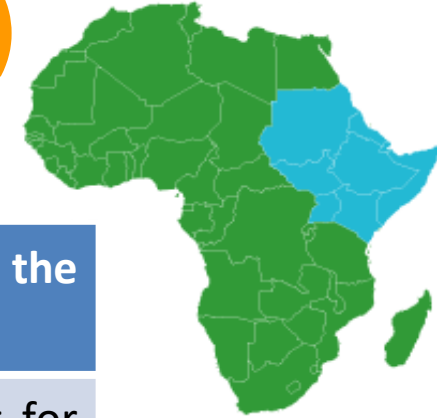
# Regional programmes and initiatives

*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 and assessment of economic impacts of droughts.
- **South America (2015):** Regional workshops in Bolivia and Argentina leading to follow-up activities with partners on drought management planning and monitoring.

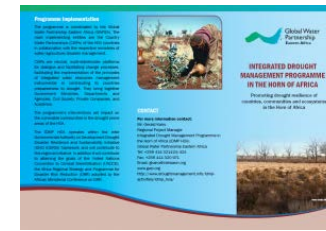
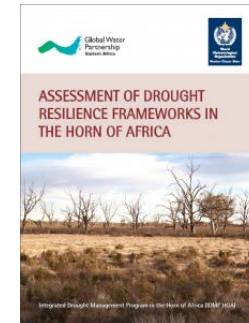


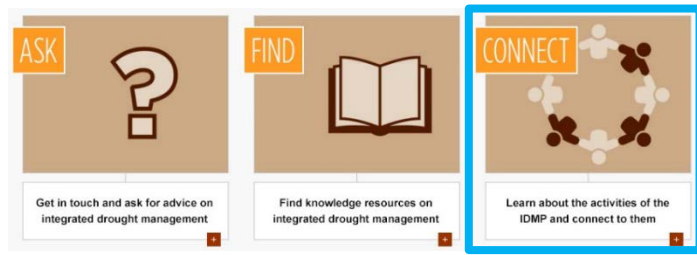
# Example: IDMP Horn of Africa (IDMP HOA)



**Implementation:** executed by GWP Eastern Africa in 2015  
MoU with IGAD with close links to IDDRSI

Impact/ Goal	Improved drought resilience of communities and ecosystems in the Horn of Africa through managing water resources			
Outcome	1. Collaborative drought management programs and actions		2. High priority & commitment for implementing IDM as part of national development plans	
Outputs	c. Enhanced partnership for drought management in the HOA	a. Enhanced capacities for drought management in the HOA 	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





# National initiatives

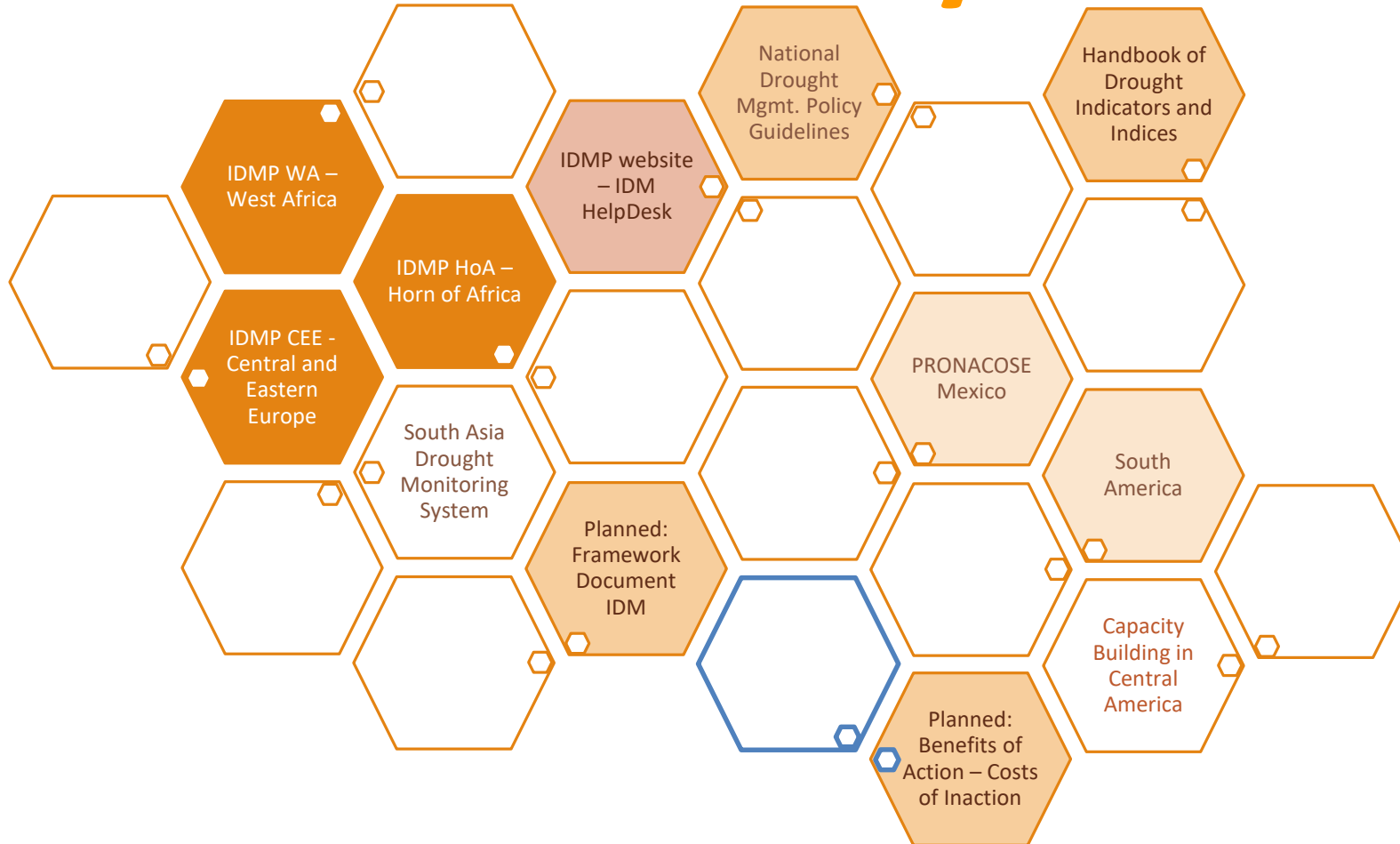
## ■ PRONACOSE Mexico (2013 – now):

- National Program against Drought (PRONACOSE) slated to run for the next 6 years in Mexico's 26 basin councils
- IDMP provides 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 (2014):

- 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

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

[idmp@wmo.int](mailto:idmp@wmo.int)

