

# IDMP

Integrated Drought Management Programme



WORLD  
METEOROLOGICAL  
ORGANIZATION



Global Water  
Partnership



**BUILDING  
DROUGHT  
RESILIENCE  
TO REDUCE  
POVERTY**



# World Meteorological Organization

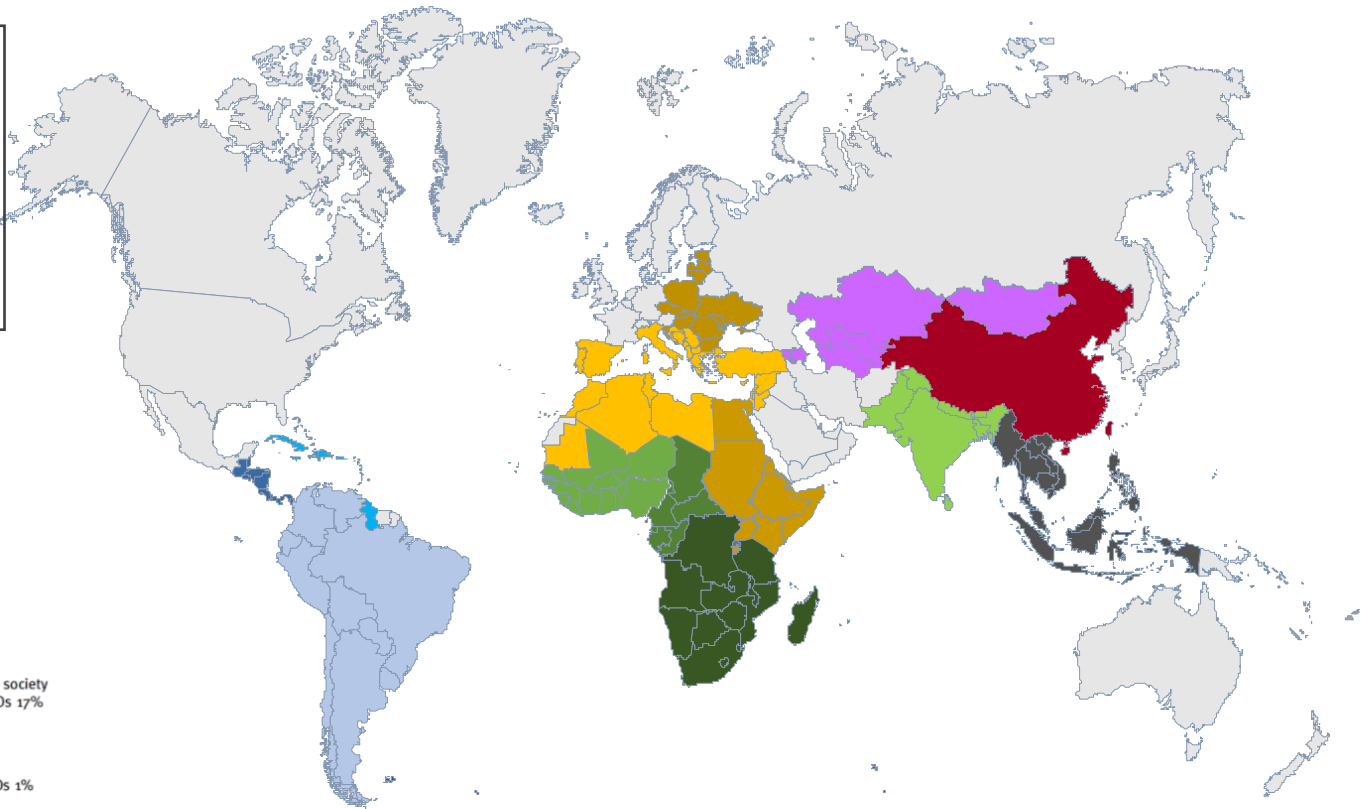
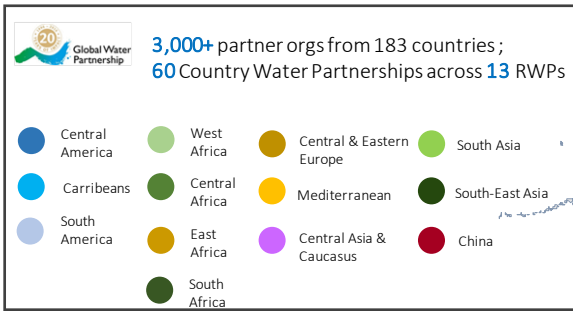
**WMO is the United Nations system's authoritative voice on weather, climate and water**

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.

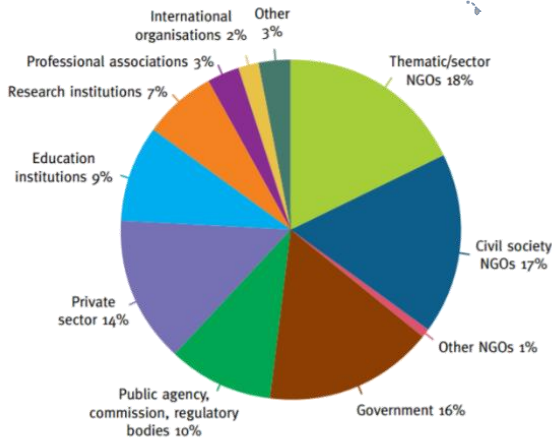
# GWP vision is for a water-secure world



**MSP + Knowledge** => influence **policies, practices & investments** for a water secure world



**GWP Partners by type**



**IDMP**  
Integrated Drought Management Programme

# How we do it



- We advocate
- We build capacity
- We generate Knowledge
- We support country's water related development / climate processes
- We identify and prepare projects for financing
- ...

Since 2014:  
**170+** water governance outcomes  
**800m€+** water related investments influenced  
**20m€+** investments directly mobilized from climate finance sources through project preparation

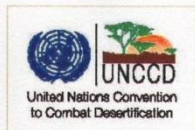
## Results

- Country results
- Global, regional and transboundary river basin results

<http://www.gwp.org/en/interactivemap/>

# IDMP

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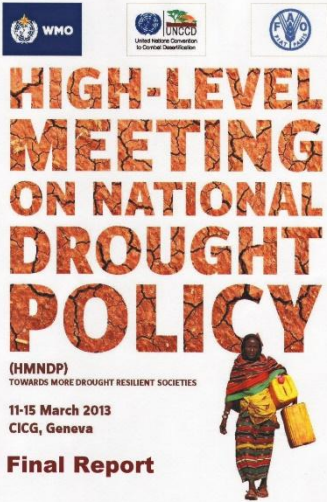
# HIGH-LEVEL MEETING ON NATIONAL DROUGHT POLICY

(HMNDP)  
TOWARDS MORE DROUGHT RESILIENT SOCIETIES

11-15 March 2013  
CICG, Geneva

**Final Report**





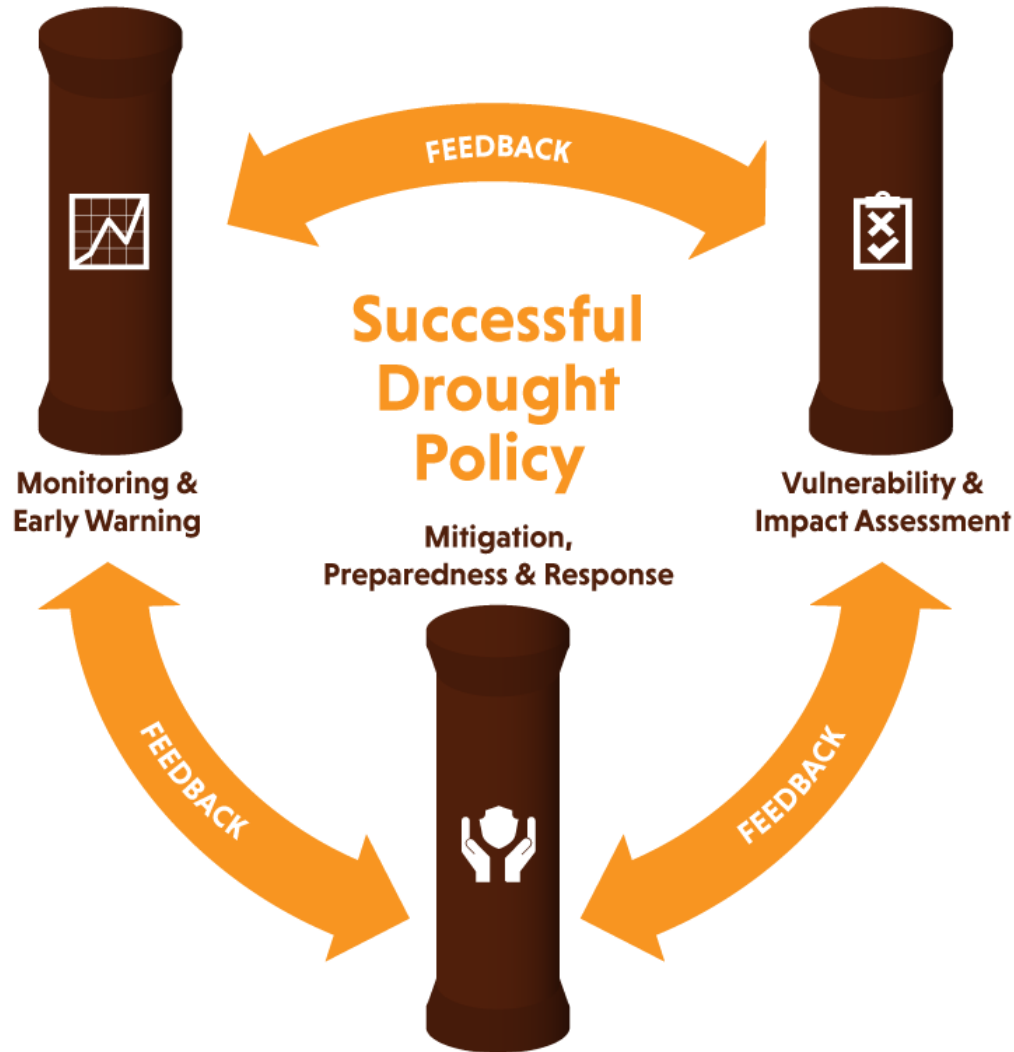
# IDMP Background

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**

# Three Pillars of Integrated Drought Management



**IDMP**

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# 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 contribution 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



# Partners

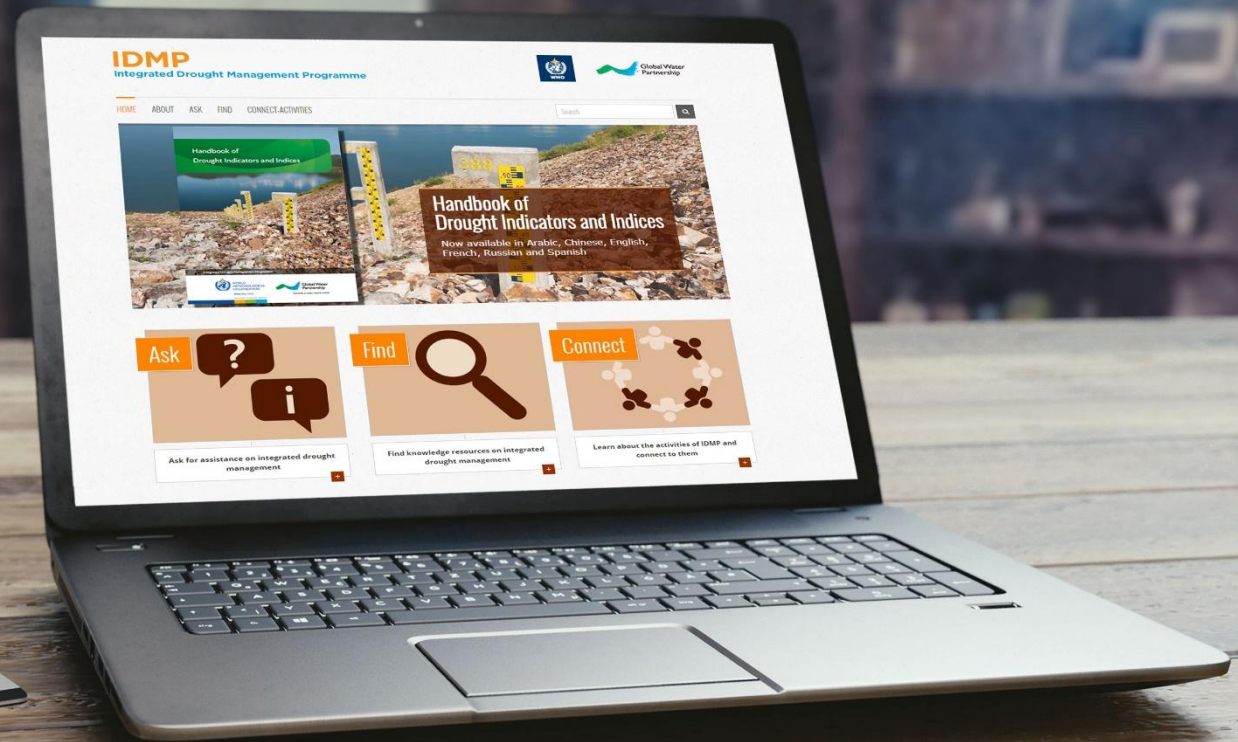
- FAO Food and Agriculture Organization of the United Nations
- UNCCD United Nations Convention to Combat Desertification
- UN CBD UN Convention on Biological Diversity
- AEMET Spanish Meteorological Agency
- Australian Bureau of Meteorology
- CONAGUA Mexico's National Water Commission
- FEWS NET Famine Early Warning Systems Network
- 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

# IDMP

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## Integrated Drought Management HelpDesk



# Integrated Drought Management Helpdesk

The image shows three interactive buttons for the Integrated Drought Management Helpdesk. Each button has a title in an orange box, a central icon, a descriptive text box, and a small red '+' icon in the bottom right corner. The 'Ask' button is highlighted with a blue border.

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

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

# Integrated Drought Management Helpdesk



## Request Assistance

**IDMP**  
Integrated Drought Management Programme

HOME ABOUT **ASK** FIND CONNECT-ACTIVITIES

Search

HOME / ASK / REQUEST ASSISTANCE

**Ask a question**  
You may ask a question to experts using this form.

Given name

(ex. John)

Family name

(ex. Smith)

Email \*

Your e-mail address will not be made public. It will only be used for communications regarding your question.

Name of Organisation \*

Website

Subject \*

Question / Request \*

# Integrated Drought Management Helpdesk

## Support Base Partners



**IDMP**  
Integrated Drought Management Programme

HOME ABOUT **ASK** FIND CONNECT/ACTIVITIES

HOME / ASK / SUPPORT BASE PARTNERS

IDMP partner organizations and IDMP cosponsors, WMO and GWP, will respond to the HelpDesk requests submitted [here](#).

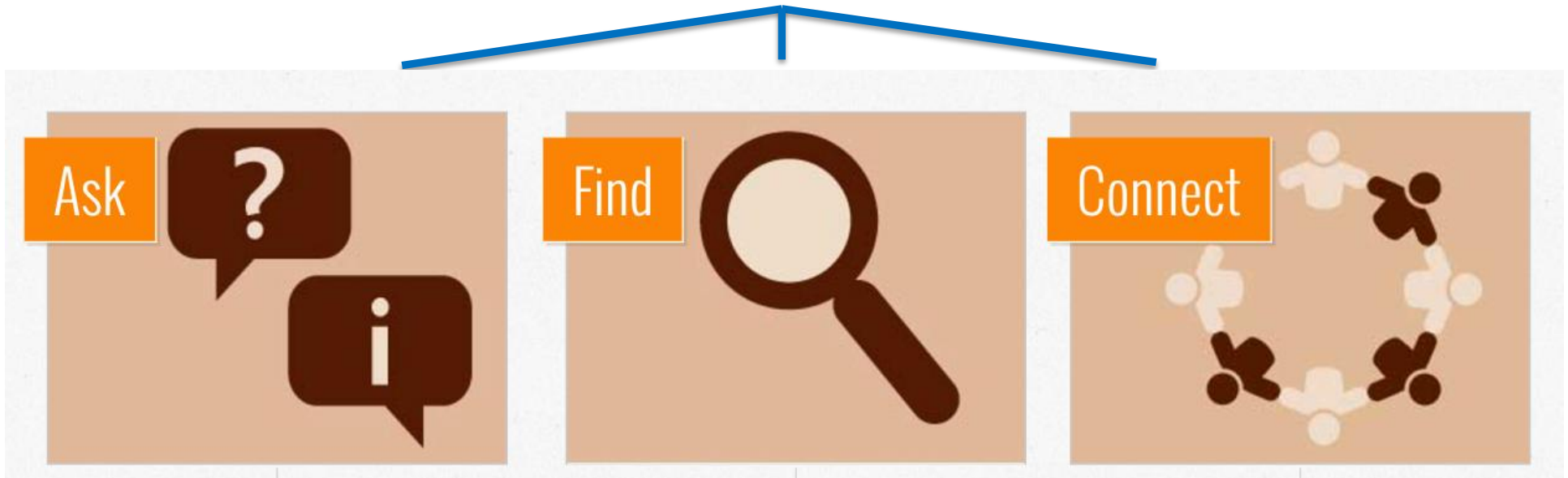
- Australian Bureau of Meteorology (BOM)
- Drought Management Centre for Southeastern Europe (DMCSEE)
- International Center for Agricultural Research in the Dry Areas (ICARDA)**

The International Center for Agricultural Research in the Dry Areas (ICARDA) is a research center whose mandate is to promote agricultural development in the world's dry areas, located predominantly in developing countries. The rise of droughts and desertification of agricultural land has intensified the work of ICARDA. ICARDA engages in the in-field delivery of its research outputs, specifically with helping to solve the obstacles faced by resource-poor farmers. The aims are to help alleviate the larger problems of food insecurity and poverty while promoting sustainable growth in agriculture. Some of the interventions on the field by ICARDA include helping with water harvesting, conservation agriculture, diversification of production systems, integrated crop/rangeland/livestock production systems, and the empowerment of rural women.

Promoting standard approaches to vulnerability and impact assessment	Implementing effective drought monitoring and early warning system	Enhancing preparedness and mitigation actions	Implementing emergency response and recovery measures	Understanding the cost of inaction and benefit of action
<ul style="list-style-type: none"> <li>Promotes agricultural development in the world's dry areas</li> </ul>	<ul style="list-style-type: none"> <li>Conducts research</li> <li>In-field delivery of research outputs</li> </ul>	<ul style="list-style-type: none"> <li>Develops technical, institutional and policy options for preparation and mitigation through effective technologies</li> </ul>	<ul style="list-style-type: none"> <li>Helps with water harvesting, conservation agriculture, and diversification of production systems</li> </ul>	<ul style="list-style-type: none"> <li>Directly helps resource poor farmers</li> <li>Goal is to alleviate food insecurity and poverty</li> </ul>

- IGAD Climate Prediction and Applications Center (ICPAC)
- Joint Research Centre (JRC)
- Mexican Institute of Water Technology (IMTA)
- United Nations Convention on Biological Diversity (CBD)

# Users



# Integrated Drought Management Helpdesk

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





# Guidelines and Library

## Guidelines and tools created by Experts

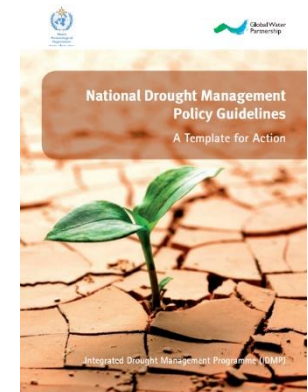
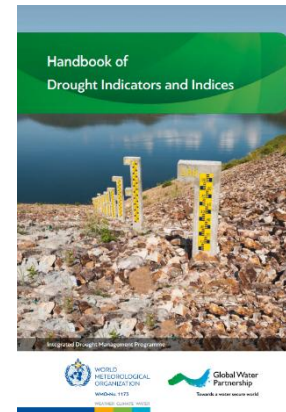
- Handbook on Drought Indicators and Indices (online tool)
- National Drought Management Policy Guidelines

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

## Drought Management Library

- Over 300 publications
- Vetted by IDMP Partners
- Ongoing updates

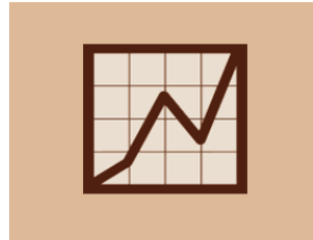
[www.droughtmanagement.info/library](http://www.droughtmanagement.info/library)





# Tools and Resources on the 3 Pillars of IDM

**Monitoring  
Early  
Warning**



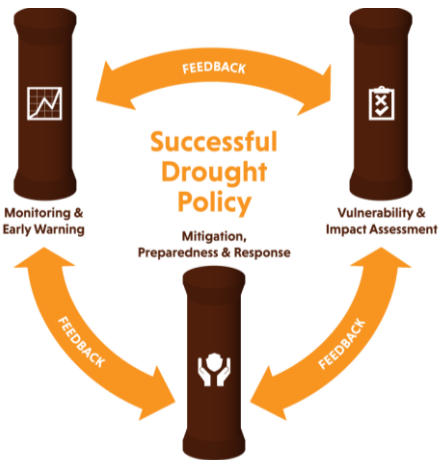
**Vulnerability  
& Impact  
Assessment**



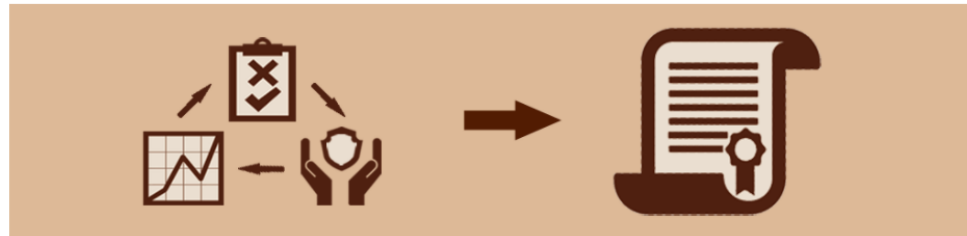
**Mitigation,  
Preparedness &  
Response**



**Tools and Examples of Applications on the 3 pillars of Integrated Drought Management**



**Drought Policies and Plans**



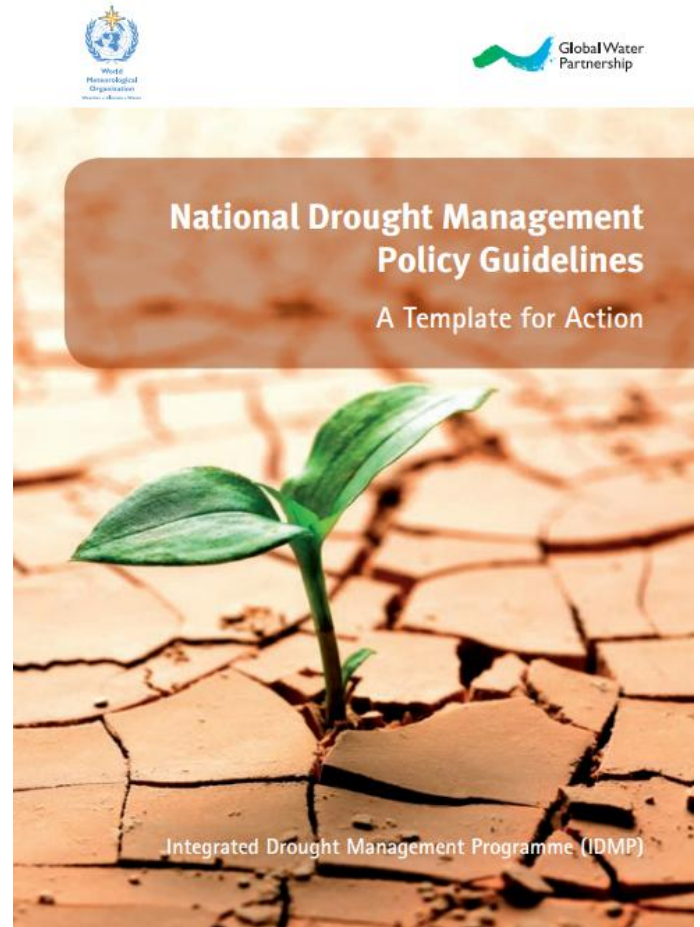
**Overview of Drought Management Plans and Policies**

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



# 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.

**10** Evaluate and revise policy and supporting plans

**9** Develop education programmes for all age and stakeholder groups

**8** Publicize the policy and preparedness plans; build public awareness and consensus

**7** Integrate science and policy aspects of drought management

**6** Identify research needs and fill institutional gaps

**1** Appoint a national drought management policy commission

**2** State or define the goals and objectives of a risk-based national drought management policy

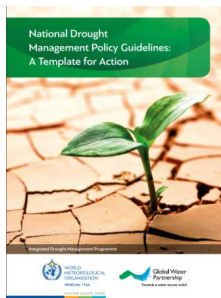
**3** Seek stakeholder participation; define and resolve conflicts between key water use sectors

**4** Inventory data and financial resources available and broadly identify groups at risk

**5** Prepare/write the key tenets of the national drought management policy and preparedness plans, following the three-pillar approach

# Drought Policy and Preparedness Process

## 10 STEPS

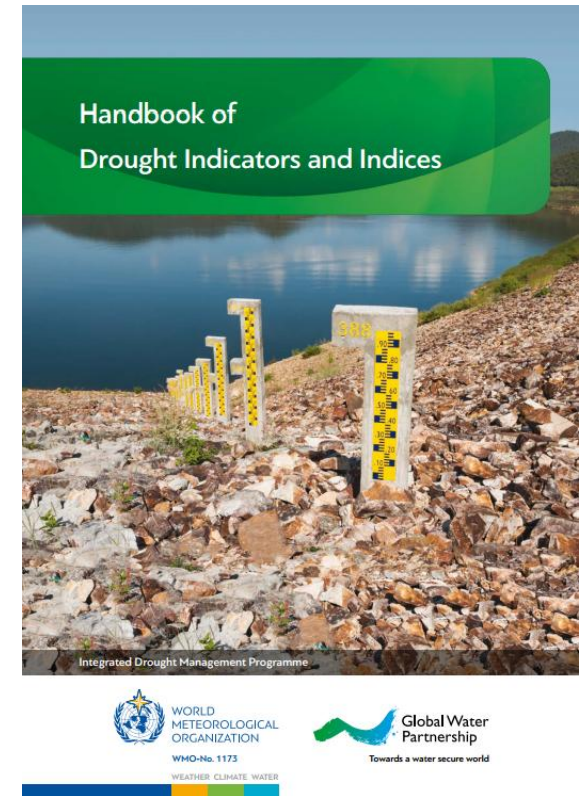


Source: World Meteorological Organization and Global Water Partnership, [National Drought Management Policy Guidelines: A Template for Action](#)



# 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.



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ASK



Get in touch and ask for advice on integrated drought management

FIND



Find knowledge resources on integrated drought management

CONNECT



Learn about the activities of the IDMP and connect to them

# Activities





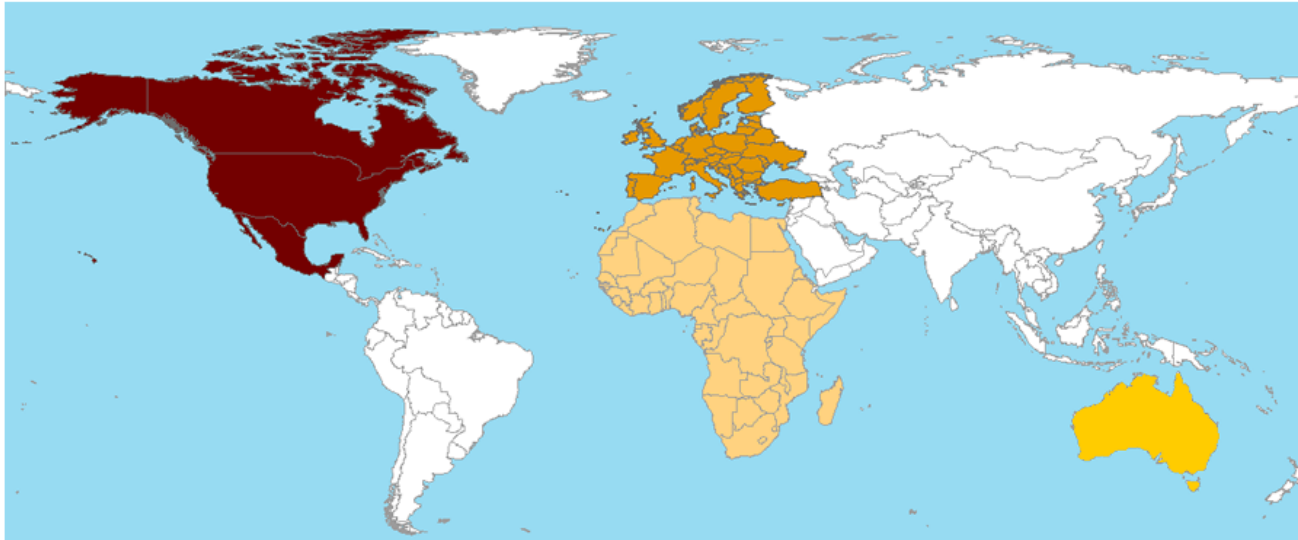
# Regional programmes and initiatives

*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 region through 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 training 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 (MoU with Argentinian Government signed 2017) leading to follow-up activities with partners on drought management planning and monitoring.
- **Pacific Islands (2016):** Draft National Drought Policies developed In Solomon Islands and being developed in Tuvalu and Kiribati

## Regional Drought

<https://www.drought.gov/gdm/>



### North America

[North American Drought Monitor](#)

[NIDIS US Drought Portal](#)

### Europe

[European Drought Observatory](#)

### Africa

[IGAD Climate Prediction and Applications Centre \(ICPAC\)](#)

[ICPAC Web Mapping](#)

[Princeton's Africa Flood and Drought Monitor](#)

### Australia

[Australian Government Bureau of Meteorology](#)

### South America

[Western South America Regional Climate Center / Centro Internacional para la](#)

[Investigación del Fenómeno de El Niño \(CIIFEN\)](#)

[Princeton's Latin American Flood and Drought Monitor](#)

### Asia

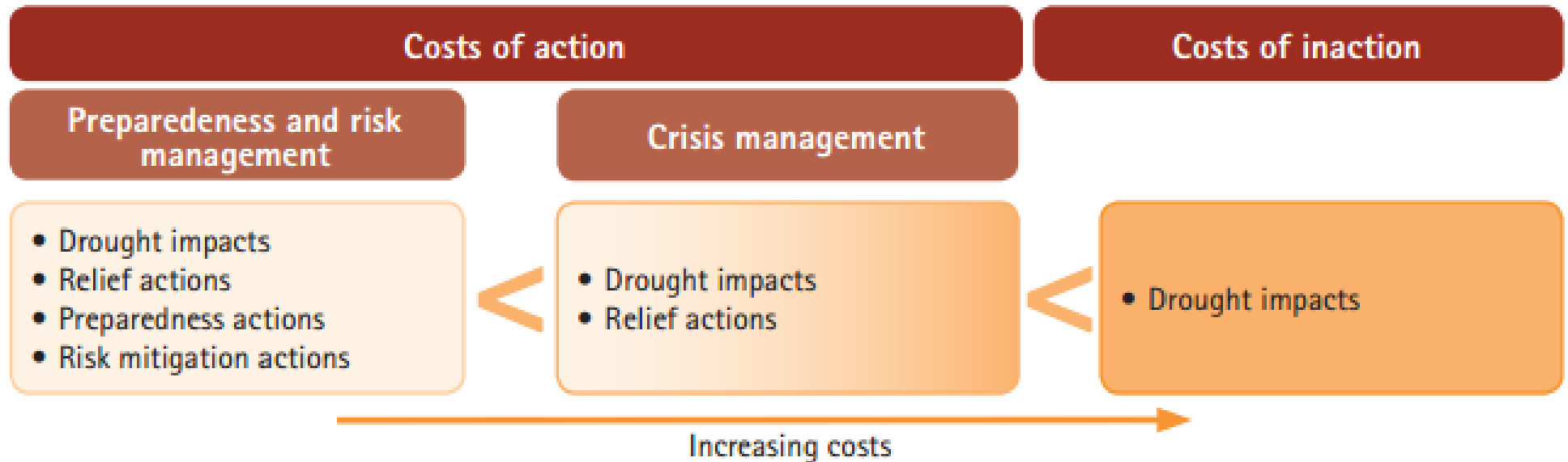
[South Asian Drought Monitoring System](#)

# 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 Washinton DC
- Literature Review released 2017
- World Bank – IDMP Discussion Paper to be released 2018



# 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

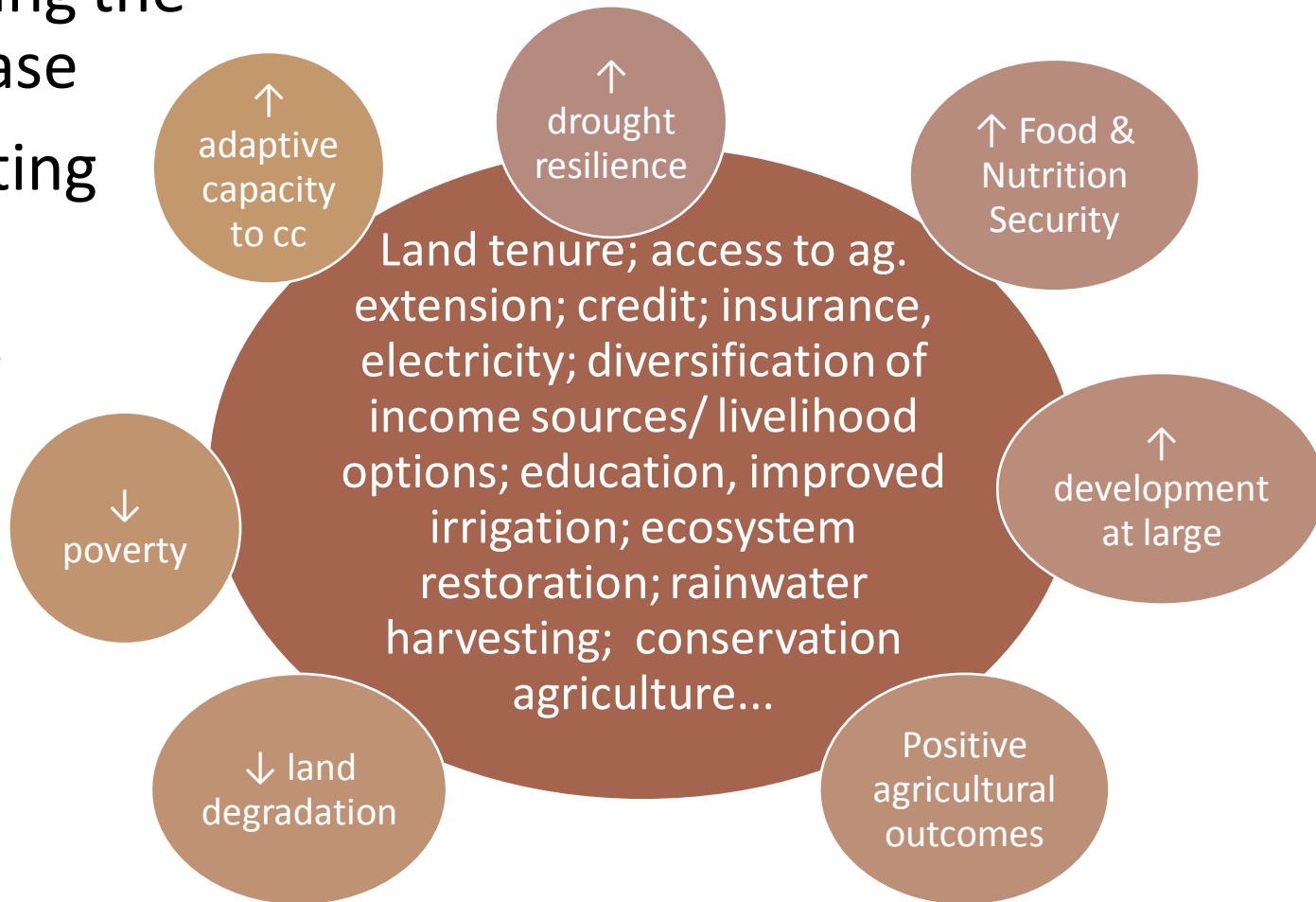
Escape from?



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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# Message 2: Evidence to support

- Strengthening the evidence base
- Link to existing agenda
- 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

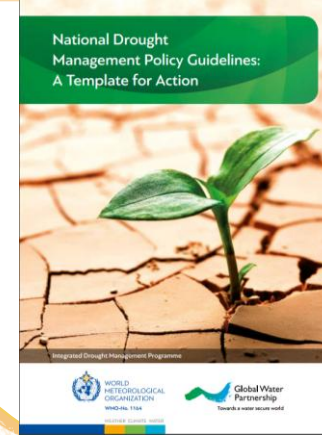
↓ land  
degradation

↑  
agricultural  
outcomes

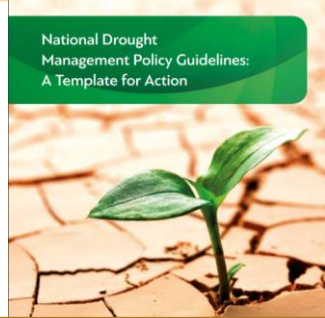


# Message 3: Phased & integrated strategies

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



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
- Apply economic argument alongside drought policy guidance



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

# For further information

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

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