

Workstream 3: Drought Monitoring, Impact Assessment and Forecasting

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The Three Pillars of Integrated Drought Management

IDMP
Integrated
Drought
Management
Programme

Formulating **proactive** drought policy:

PILLAR 1

**MONITORING AND
EARLY WARNING**



**PROACTIVE
DROUGHT
MANAGEMENT**

PILLAR 2

**RISK AND IMPACT
ASSESSMENT**



PILLAR 3

**DROUGHT RISK MITIGATION,
PREPAREDNESS AND RESPONSE**



Pillar 1: Monitoring and Early Warning

- **Integrated** monitoring of key indicators (hydrological, climatological, impacts)
- **Used to trigger actions in drought plans**

Pillar 2: Risk and Impact Assessment

- Knowledge of **who and what is at risk and why** – root causes of impacts

Pillar 3: Risk Mitigation, Preparedness and Response

- **Proactive** measures to increase coping capacity
- Response measures that support the principles of drought risk reduction

Monitoring, Early Warning & Information Delivery Systems

• Indicators/Indices	• Agencies/Ministries/Organizations
<ul style="list-style-type: none">• Precipitation• Temperature• Surface water supplies<ul style="list-style-type: none">– Stream flow– Soil Moisture– Reservoir levels– Snow pack– Water use• Ground water• Remotely-sensed data (e.g., plant water stress)• Impacts<ul style="list-style-type: none">– By sector, area	<ul style="list-style-type: none">• Water• Meteorological & Hydrological Services• Agriculture, Forestry & Fisheries• Environment• Health• Energy• Transportation• Commerce• Social Services• NGOs• Others

Vulnerability/Impact Assessment, Mitigation and Response

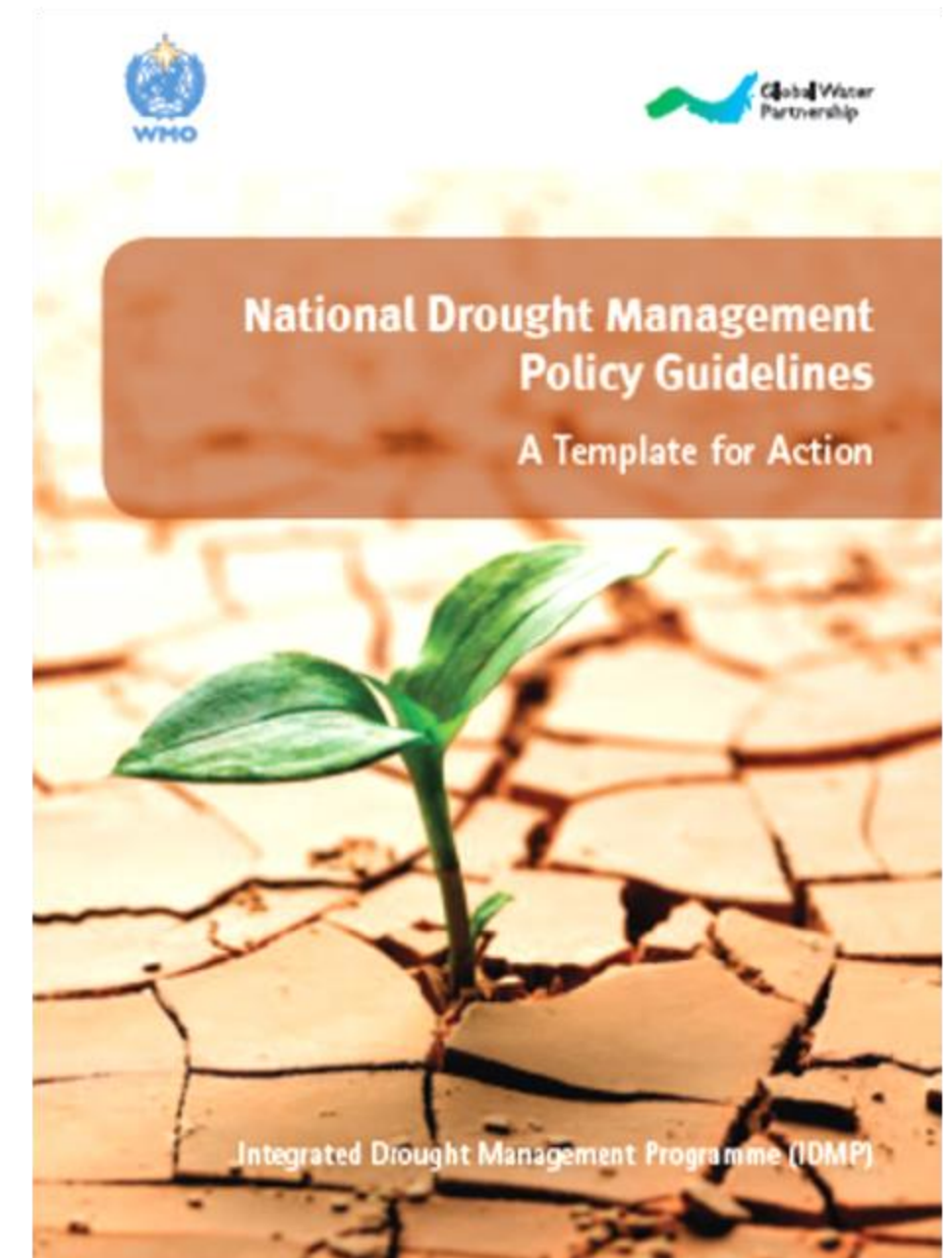
Who and What is at RISK and Why?	
<ul style="list-style-type: none">• By Sector	<ul style="list-style-type: none">• Agencies, Organizations & Stakeholder Groups
<ul style="list-style-type: none">• Agriculture• Energy• Environment, Recreation & Tourism• Transportation• Health• Commerce• Others	
By Area/Region	
<ul style="list-style-type: none">• Drought management areas (provinces, river basins)• Communities (rural, urban)• Indigenous population	<ul style="list-style-type: none">• Reps from Ministries and non-governmental organizations• Communities & regional organizations• Stakeholder groups representing all impact sectors• Others

National Drought Management Policy Guidelines

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



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



The 10-Step Planning Process

Step 1

Appoint a national drought policy commission

Step 2

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

Step 3

Seek stakeholder participation and **define/resolve** conflicts between key water use sectors, considering transboundary implications.

Step 4

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

Step 5

Prepare/write the key tenets of a national drought management policy and preparedness plans *(monitoring, early warning and prediction; risk and impact assessment; mitigation and response)*

The 10-Step Planning Process

Step 6

Identify research needs and **fill** institutional gaps

Step 7

Integrate science and policy aspects of drought management

Step 8

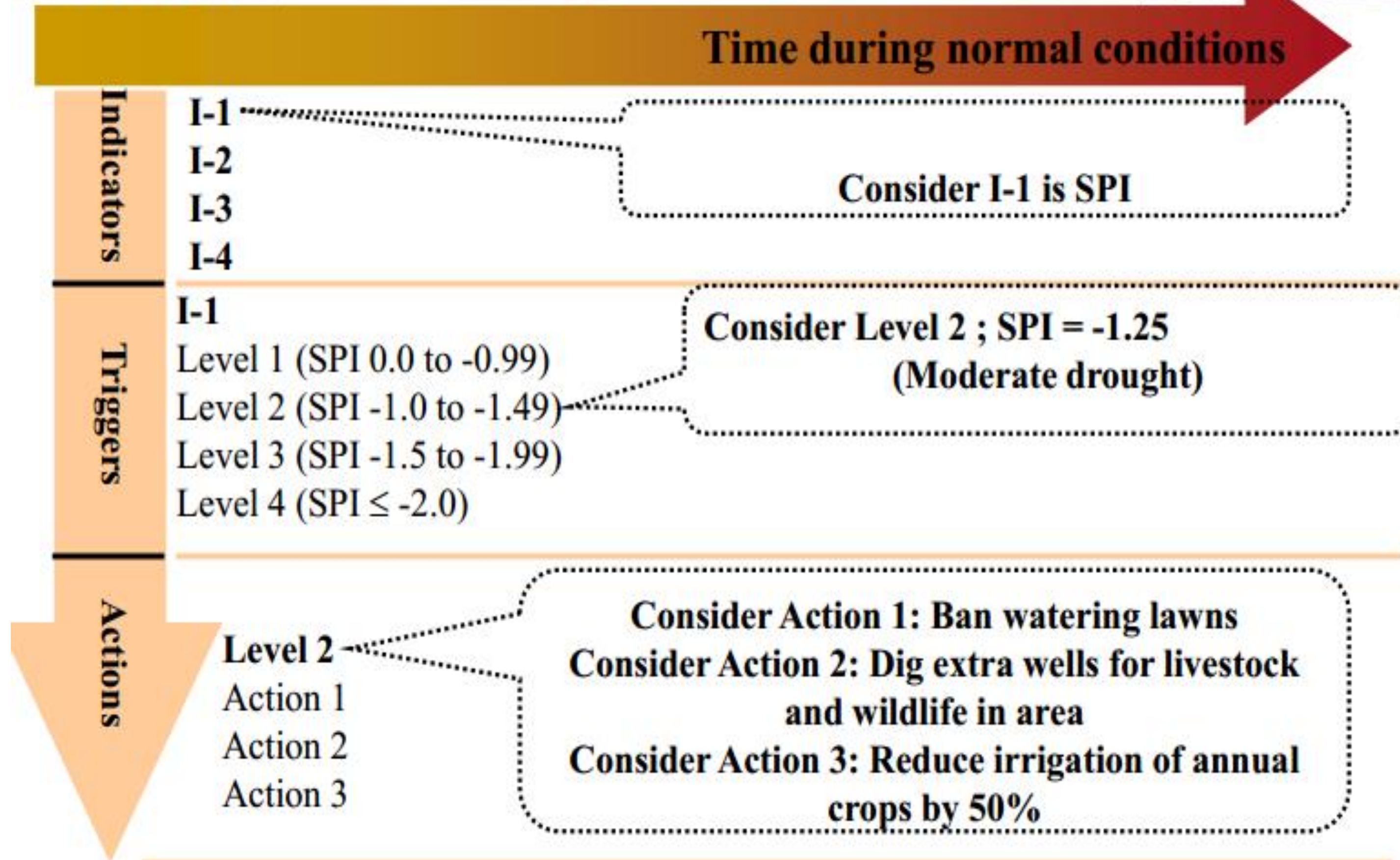
Publicize the national drought management policy and preparedness plans, **build** public awareness and consensus

Step 9

Develop education programs for all age and stakeholder groups

Step 10

Evaluate, test and **revise** drought management policy and supporting preparedness plans





Thank you!