



**UNW-DPC**  
UN-Water Decade Programme on Capacity Development

# Summary/ Conclusions

# Key Goals of the Initiative



- Raise awareness on risk based NDMP
- Enable nations to assess their national situation
- Capacity development to enable nations to identify a suite of strategies
- ❖ The overall aim: enable countries to formulate a proactive, risk based drought mgt policy at national level.



# Country Report Presentations: Summary



- Increased drought frequency/severity has been observed in the region over past 10-20 years
- Most countries have plans, such as National Action Plans for the UNCCD, and sectoral strategies that integrate drought or related to it;
- However, a ‘full fledged’ drought policy and related action plan as inferred to by HNMDP are absent: encouraging start has nevertheless been noticed.
- Relatively good experience in drought management with varying levels between countries
- Most countries have a monitoring system the capacity and usage of which also vary from one country to another

# Country Report Presentations: Summary



- Drought vulnerability is assessed mostly globally by region, with some details for certain countries
- Irrigation development/ management improvement are the mitigation measures most adopted by countries.
- Other mitigation and response measures: compensation for loss and crop insurance in a few countries was reported
- Country needs have been expressed which include:
  - adoption of risk based national drought policy
  - development of related action plans,
  - upgrading monitoring and early warning,
  - enhanced vulnerability and impact assessment,
  - integration between sectors and operational arrangements.

# Session 3: Drought monitoring & early warning systems



## The current procedures/challenges on early warning systems?

- Data issues (in terms of real-time availability, quality, density of stations, length of time series)
- Automated (real time) stations are very important for early warning systems
- There are no perfect forecasts and seasonal forecasts are not always reliable
- Lack of understanding of the vulnerability of water supply
- The need for better information on current status of water resources and historical data.
- Delivering of appropriate (time and format) information to public is challenging
- Knowledge (data) of regions outside country is important

# Session 3: Drought monitoring & early warning systems



## Needs for meteorological and hydrological networks, data quality and sustainability

- Poor data coverage especially in high mountains (need snow pack information)
- Need for more soil moisture sites
- Introduction of new measurements (Evapotranspiration, solar radiation)
- Data on crop phenological stages (i.e. flowering, reproduction, etc)
- Need better weather and climate database management Systems
- Sustainability: need support from the Governments; raising awareness (Gov, public); incorporate needs into national strategies

# Session 3: Drought monitoring & early warning systems



## Re- mechanisms in place for communicating/liaising drought monitoring & early warning information between national institutions?

- Products are placed on the web, freely available to public.
- Data exchange between the institutions is sometimes challenging. Lack of coordination on data sharing
- Data is currently exchanged on request on Ad-hoc and Emergency basis
- Data should be free of charge for research purposes and for other governmental institutions.
- Early Warning System information disseminated through TV, radio, and press
- There is a need to do more on drought issues

# Session 4: Vulnerability & risk assessment



## Who is vulnerable and why?

- **Most vulnerable sectors:**
  - Agriculture
  - Industry
  - Transport
  - Biodiversity (Forests)
  - Tourism
  - Health
- **Most vulnerable groups:**
  - Small scale farmers (rain fed crop production)
  - Poor and marginalized people/communities
  - Tourist agencies/Hotel owners/community-based tourism
  - Elderly people



# Session 4: Vulnerability & risk assessment



- ❖ All the 3 groups focused on drought impact in agriculture
- **Efficient water use strategy:**
  - Diversification of water sources
  - Rehabilitation of existing irrigation infrastructure
  - Transfer of water resource
  - Introduction drought-resistant species
  - Access to data
  - Development of Early Warning System
  - Insurance measures
  - Education and awareness raising

# Session 4: Vulnerability & risk assessment



## Who plays which role in development of mitigation plan?

Stakeholders	Role
Decision-makers (EU, legislative bodies, local municipalities)	take decision upon information
Key ministries	Impact assessment
HydrometeoService	provide data/Early Warning System
Research community	fill research gaps
Resource users association	take part in decision-making process in bottom-up manner
Private sectors/Insurance companies-	Incentive measures
Civil society organizations/NGOs/extension services	Capacity building, awareness raising

# Session 4: Vulnerability & risk assessment



Capacity Development to Support  
**National  
DROUGHT**  
Management Policies

## Who is vulnerable (socially/economically) and why?

**Demographic groups:** elderly and children, farmers, landless people, sick people, rural communities

**Sectors:** Agriculture (differentiate rain fed and irrigated, different vulnerability), Industry/Energy (production ,cooling), Forestry, Transport, Tourism, Biodiversity, Health, water sector (surface water, groundwater)

❖ Education and awareness raising, preferably at young age, experts should engage in awareness raising, private sector should get involved

# Session 5: Drought preparedness, mitigation & responses



## Re-Drought Preparedness

- Cost of inaction, economics of drought should be a key message to decision makers.
- The cost of risk based Drought Management more than offsets the cost of emergency response.
- Cost-benefit analysis essential for convincing policy makers
- Mitigation measures are to be developed jointly by stakeholders rather than separately by sector
- Identifying drought mitigation measures may seem simple but it actually calls for ample negotiations for tradeoffs and can be time consuming, particularly the first time

# Session 5: Drought preparedness, mitigation & responses



## Re-Drought mitigation measures

- Improve irrigation systems
- Diversification of energy sources
- Plant fire resistant species
- Water leakage reduction

# Session 5: Drought preparedness, mitigation & responses



## Re - Integration of drought responses & recovery in drought plans

- Water saving measures (night irrigation, etc.)
- Priority of water use (reduction of industrial water consumption)
- Tax reduction of victims of drought
- Cross border actions
- Measures for protecting soil moisture (min tillage)

# Session 6: The 10-Step process



Capacity Development to Support  
**National  
DROUGHT**  
Management Policies

1. Appoint a Drought Task Force
2. State the Purpose and Objectives of the Drought Plan
3. Seek Stakeholder Participation and Resolve Conflict
4. Inventory Resources and Identify Groups at Risk
5. Develop Organizational Structure and Prepare Drought Plan
6. Integrate Science and Policy, Close Institutional Gaps
7. Publicize the Proposed Plan, Solicit Reaction
8. Implement the Plan
9. Develop Education Programs
10. Post-Drought Evaluation

# Final Points



- Cost of inaction, economics of drought should be a key message to decision makers.
- Risk based Drought Management is cost effective when compared with the cost of disaster response.
- Presenting cost-benefit analysis to convince policy makers.



# UNW-AIS

UN-Water *Activity* Information System

**Discover, learn and share!**

An integrated online information system and  
e-learning platform for water-related activities



[www.ais.unwater.org](http://www.ais.unwater.org)

UNW-AIS is managed by UNW-DPC



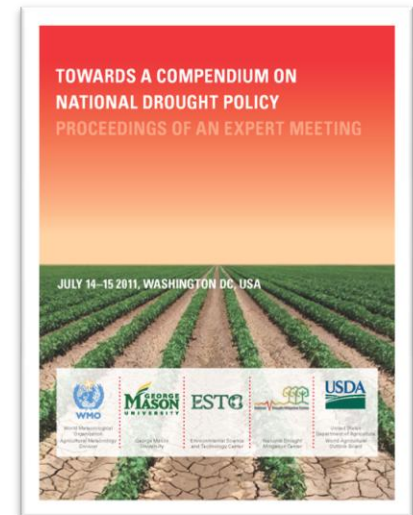
Find out more on the initiative:  
[www.ais.unwater.org/droughtmanagement](http://www.ais.unwater.org/droughtmanagement)

# NDMP on UNW-AIS



The screenshot shows the UNW-AIS website interface. At the top, there's a navigation bar with 'Home', 'Projects', 'Publications', 'Learning' (highlighted), 'Platforms', and 'UN-Water'. Below the navigation bar, the page title is 'Home > Topics > Climate Change and Disaster Risk Management > National Drought Management Policies Initiative'. The main content area features a 'Topic outline' section with a banner image of cracked earth. The banner text reads 'A UN-WATER INITIATIVE Capacity Development to Support National Drought Management Policies'. Below the banner are logos for WMO, FAO, UNCCD, and UN-Water. The text below the logos states: 'The World Meteorological Organization (WMO), the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Convention to Combat Desertification (UNCCD) in cooperation with the UN-Water Decade Programme on Capacity Development (UNW-DPC) have initiated the Joint Capacity Development Project on National Drought Management Policies. The project was launched by an international kick-off workshop in Geneva in March 2013, and will be followed by a series of regional workshops in several drought-prone regions worldwide in 2013-2014. After the workshop series, the initiative will close with a final wrap-up conference.' Below this text, it says: 'It has been estimated that droughts are the world's costliest natural disaster, accounting for a cost of 6-8 billion US dollars annually, and affect more people than any other form of natural disaster (Wilhite, 2000). They are considered to be the most far-reaching of all natural disasters, causing short and long-term economic losses as well as significant secondary and tertiary impacts, particularly in the food, water and energy sectors. Droughts are considered to impact nations and countries around the world with dramatic economic and ecologic damage. To reduce the societal vulnerability to droughts, the initiative aims to reinforce a paradigm shift to overcome prevailing...'. On the right side of the screenshot, there are logos for UNW-DPC, UN-Water, and a 'Feedback Form' button. Below that, there's a tweet from UN\_Water: 'UN\_Water Interested in "Safe Use of Waste Water in Agriculture"? Check out <http://t.co/BQwveb9UqI> #UNWais <http://t.co/ZBG1tbZswiS> 19 hours ago · reply · retweet · favorite'. Below the tweet, there's another tweet: 'UN\_Water Find out about Water & Climate change priorities from #IINwater'.

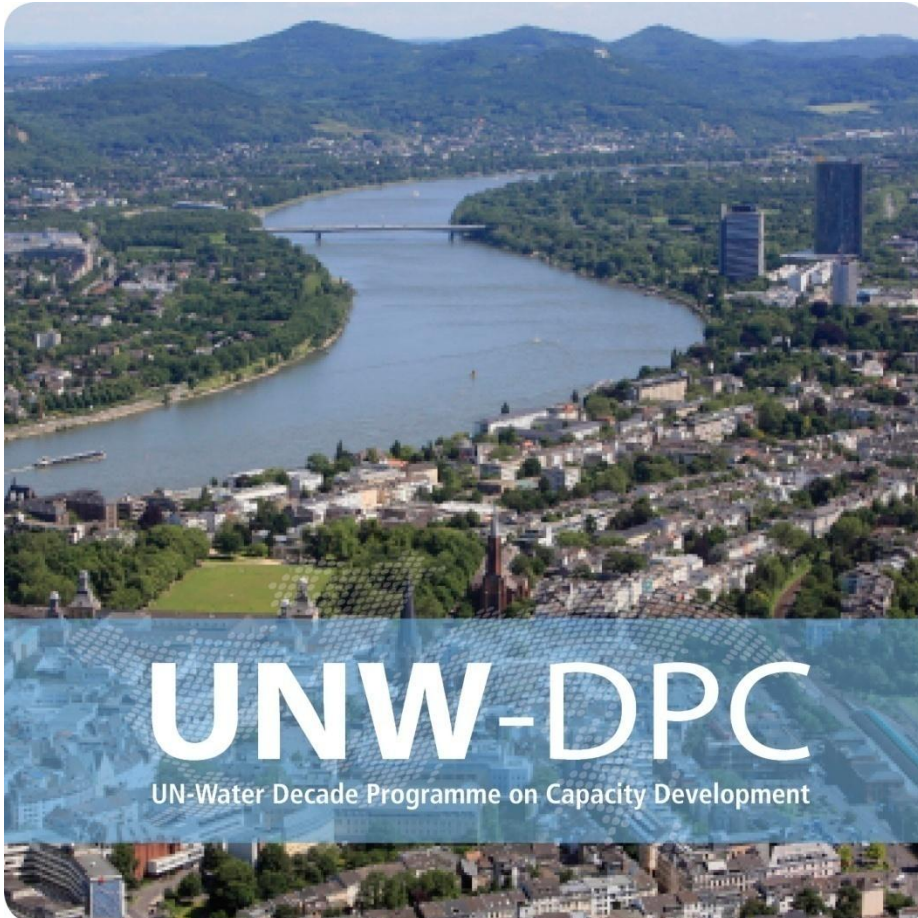
- Documents the activities of the initiative
- Reference and workshop material, such as



[www.ais.unwater.org/droughtmanagement](http://www.ais.unwater.org/droughtmanagement)

# Thank you!

UNW-DPC



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2005-2015

UN WATER

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