Drought Risk Management as integrated approach → Disaster Risk Reduction

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OVERVIEW

1. Vision

2. International Frameworks

3. Integrated approach for Drought Risk Mgt

4. Some ideas to move forward
1. Drought

- Slow onset hazard with uncertain evolution
- Spatial heterogeneity and trans-boundary span
- **Affects:** tens of millions of people annually
- **Primary cause:** high vulnerability
- **Growing pressures:** poverty, soil degradation, population growth, conflict, HIV/AIDS, governance, climate change, etc.

**Drought** is a complex slow onset hazard that allows mitigation and preparedness. More than ever there is a need to join efforts and address the root-causes of vulnerability: social-economic, physical, environmental factors, to build drought resilient communities and societies.
II. Drought Definition and Typology

Figure 5
Relationships between meteorological, agricultural, hydrological, and socio-economic drought

- Climate Variability
  - Precipitation deficiency (amount, intensity, timing)
  - Reduced infiltration, runoff, deep percolation, and ground water recharge
  - High temp., high winds, low relative humidity, greater sunshine, less cloud cover
  - Increased evaporation and transpiration

- Soil water deficiency
  - Plant water stress, reduced biomass and yield

- Reduced streamflow, inflow to reservoirs, lakes, and ponds; reduced wetlands, wildlife habitat

- Economic Impacts
- Social Impacts
- Environmental Impacts

Source: National Drought Mitigation Center, University of Nebraska-Lincoln, USA
Elements of Drought Risk Reduction Framework & Practices

Figure 8
Proposed main elements for Drought Risk Reduction

Source: UN/ISDR secretariat and National Drought Mitigation Center, University of Nebraska-Lincoln, USA
Drought Risk Reduction elements

1. **Policies and governance**
   
   To ensure that drought risk reduction is a national and local priority with a strong institutional basis for implementation

**Guiding principles**

- Political commitment, strong institutions and appropriate governance, as part of SD
- Bottom-up approach with community participation
- Capacity building and knowledge development
- Policies emphasize mitigation and preparedness, based on sound risk identification
- Policy mechanisms
- Long-term investment in mitigation

**Main subjects**

- Building political and public alliance: roles and responsibilities of actors
- Capacity development
- Components of a drought policy
- National drought policy case studies
- Provincial drought policies
2. Drought risk identification, impact assessment, and early warning (local, national & trans-boundary scope)

- Drought risk is a combination of hazard and vulnerability
- Understand hazard: monitoring and early warning system
- Vulnerability analysis: physical, socio-economic, livelihoods, cultural, political, environmental, etc.
- Drought scenarios and impact assessment
- Forecast and EW
3. **Awareness and knowledge management**

- Promote a culture of prevention and resilience.
- Effective information management and knowledge exchange.
- Awareness campaigns with political and public commitment.
- Identification and promotion of indigenous knowledge, skills and good practices.
- Education and training opportunities to reduce risk.
- Sustained political commitment.
4. Reducing underlying factors of drought risk and innovation

- Sustainable ecosystems and environmental management.
- DRR strategies integrated with CC Adaptation.
- Analysis of food security causes.
- Land-use planning and rural development
- Financial risk sharing mechanisms.
- Public-private partnership, etc.
5. Effective drought mitigation and preparedness measures

- Promote a culture of drought mitigation and preparedness.
- Dialogue/communication between mitigation/response actors.
- Unify top-down and bottom-up approaches.
- Enhance capacities and included locals in implementation.
- Implementation of mitigation and preparedness measures, structural and non structural.
V. Networks and mechanisms to encourage the implementation of drought risk reduction projects and practices
Figure 23
Map of some drought preparedness networks around the world

North American Drought Monitoring Network
NEMEDCA*

African Drought Risk & Development Network
Drought Monitoring Centre for SE Europe

Proposed Regional Drought Preparedness Network for Asia (under development)
NEMEDCA and African Drought Risk & Development Network

* Network on Drought Management for the Near East, Mediterranean and...
Some conclusions

- Drought impacts are expected to increase due to growing vulnerability.

- The frequency and severity of drought are expected to increase in some regions due to projected global climate change.

- More than ever we need collectively address drought root causes to reduce its impact.

- International policies and framework exist, but their application remain a challenge. National platforms et al. should make drought risk reduction a key programmatic focus.

- A number of institutions have been working on drought management and related subjects, but there is a limited coordination and sharing of information.
Some ideas to move forward?

- Partnership development and coordination, information sharing, mechanism for knowledge management and application.

- Strengthening or developing **regional networks** for drought risk reduction. Move to a global network.

- To collectively support linking policies with practices to implement coordinated and sustainable programmes for drought risk reduction. Need to identify and coordinate common activities.

- A discussion on international **funding opportunities** to support countries to plan and implement drought risk reduction programmes and activities.

The Global Drought Risk Reduction and Preparedness Network will facilitate the exchange of drought-related information and experiences around the world.
### Practices or Lessons-learned on drought risk reduction / management

(please send to UN-ISDR: basabe@un.org)

| Type (policies, programs, projects, etc.): | …………………………………………………………………………………………………… |
| Title: | …………………………………………………………………………………………………… |
| Implementer: | ………………………………………………………………………………………………. |
| Key partners: | ………………………………………………………………………………………………. |
| Project period or timeframe: | ………………………………………………………………………………………………. |
| Estimated cost (optional): | ………………………………………………………………………………………………. |

#### Summary including main components:

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#### Results:

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#### Lessons learnt or comments:

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#### For more information:

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Website: ………………………………………………………………………………………

Other contact, affiliation, e-mail: …………………………………………………………

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**Template to continue compiling and analysing good practices on drought risk reduction**
Thank you for your attention. 

*We look forward to working together in order to reduce the impacts of drought.*

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