

Capacity Development to Support National Drought Management Policies

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UNCCD Secretariat
Aug 5-8th, 2014
Addis Ababa, Ethiopia

Drought, Vulnerability and Risk Reduction: the UNCCD Context



United Nations Convention
to Combat Desertification

- **Some Definitions**
- **Impacts and Disasters**
- **Facts of Desertification**
- **Response Measures**
- **Drought Policy**
- **Information sharing**

Some Definitions

Drought refers to the naturally occurring phenomenon that exists when precipitation is significantly below normal recorded levels, causing serious hydrological imbalances that adversely affect land resource production systems (UNCCD).

Droughts are permanent, devastating and natural phenomena (recurring, part of normal climate cycles).

*The UNCCD calls for "mitigating the effects of drought" through activities related with **prediction, with reducing society's vulnerability and of the natural systems**; other UN agencies call for the similar action that aim at increasing resilience.*

Most countries - developed and developing – do not have a national drought policy in place.

Some Definitions (Cont.)

- **Agricultural Drought:** Impacts on *food production and farming*. Related with soil / water deficits, reduced ground water or reservoir levels. Deficient topsoil moisture at planting may stop germination, leading to low plant populations.
- **Hydrological Drought:** Associated with *impacts on water supply of periods of precipitation shortages*. Water stored in reservoirs and rivers are often used for multiple purposes such as flood control, irrigation, recreation, navigation, hydropower, and wildlife habitat. Competition for water in these storage systems escalates during drought; water use conflicts increase.
- **Socioeconomic Drought:** Occurs when the *demand* for an economic good (e.g., water, forage, food grains, fish, and hydroelectric power) exceeds *supply* as a result of a weather-related shortfall in water supply.

➤ Impacts of drought



Environmental

- Water scarcity
- Wind and water soil erosion
- Desertification
- Biodiversity loss
- Forest fires
- Dust & sandstorms

Economic

- Increased food prices
- Loss of livestock production
- Loss of hydroelectric power, navigation
- Loss in tourism industry

Social

- Increased poverty & reduced quality of life
- Mental & physical stress
- Forced human migration
- Social unrest
- Political conflicts

Some Definitions (Cont.)

➤ **Disaster**

Serious disruption of the functioning of a community or society, involving widespread human, material, economic or environmental losses and impacts, exceeding its ability to cope by using its own resources (UN-ISDR)

➤ **Risk**

Combination of the probability of an event and its negative consequences.

Drought Risk disasters:

refer to the potential loss, over a specified time in the future and in a particular community or society, of lives and of worsened livelihoods: reduced health conditions, assets and ecosystem services (UN-ISDR, 2009)

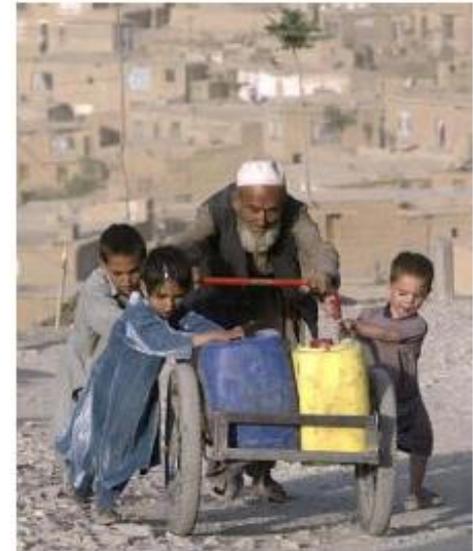
Components of Drought for Risk Management

$$\text{Hazard} \times \text{Vulnerability} = \text{Risk}$$

(drought) (environmental, social, economic and even political factors)

Climatology,
Probabilities,
Forecasts

Population growth and shifts
Urbanization
Technology (EWS; water conservation technologies)
Land use practices
Environment degradation
Water use trends
Research/Assessment
Government policies
Environmental awareness
Capacity (technical and institutional)
Poverty



Some Concerns on Drought

- **It needs drought prediction (DP).** It needs scientific inputs to understand the behavior of climate variables, of the drivers of drought and how they vary over time
- **Droughts and hunger:** Drought may cause agricultural production failures triggering famines when combined with socio-economic factors, especially when social resilience is eroded to an extent that society has low capacity to absorb the environmental shocks caused by droughts
- **Large scale humanitarian crises are more frequent** and expected to increase in the presence of climate change. It is a global issue currently affecting large parts of Africa, South and Central America, Asia and Oceania; and as such it has been recognized in the forthcoming SDGs

But: Response of countries: Reactive action to droughts

Drought resilience and the world's farmers



Pressing need: to focus on rain-fed smallholder farmers in building drought resilience and guarantee increased food security

- 70% of the World's 1.1 billion farmers are poor small-holder farmers.
- 80% of the world's agricultural land is rain-fed.
- Between 1900 and 2004, droughts caused
 - More than 50% of all deaths from natural disasters
 - Represented 35% of the population affected by disasters
 - 7% of economic losses caused by floods and earthquakes, but the economic impact of droughts could be higher

National reports to the UNCCD: Reports on drought policies are almost non-existent. (Only on drought-related projects)

A Key solution: National Drought Policies

1. Premise: Countries must be prepared to ***permanently live with drought***
2. Developing and adopting local, national / regional policies means ***to change from reactive to proactive***
3. Elements of the policy
 - a) Creation / increase / reinforcement of capacities:*** at the national, international level on DRM, identification, impact assessment, early warning
 - b) Participatory approach:*** Full involvement of affected communities, men and women, when designing drought resilience policies and measures
 - c) Financial predictability:*** budget (local / national) international cooperation

Drought Policy

- Only a few developing countries have formulated and implemented national drought preparedness and mitigation policies mainstreamed in national SD strategies / development plans towards building more ***drought resilient societies***
- Progress on drought preparedness has been slow at the national level



An integrated national drought policy

... is based on the sustainable use and management of natural resources (land / soil, forest, biodiversity, water, energy, etc.) in all socio-economic sectors (agriculture, industry, etc.) for sustainable development.



What needs to be done?

- A national perspective: Address the absence of integrated authority on natural resource management
- A local perspective: Identify different responsibility levels among different government jurisdictions
- Through gap analyses and similar tools to identify the existing policy and institutional capacities
- Other actions ...

1. Policy development and governance for drought management (national perspective)

- *National Coordinating Mechanisms*
 - ✓ Institutional tools for improving decision-making (national authority, budget, etc.)
- *Preparedness*
 - ✓ Establishment of a preparedness system to cope with the effects of drought as its done with other natural disasters
- *Investments, Innovation and Technology Transfer*
 - ✓ Investments in infra-structure
 - ✓ Innovative ways for economic development (China and Israel experiences, among others)
 - ✓ Capacity building and financial cooperation

2. Set up Policies and Measures on drought management at the local level

- Strengthening local infrastructure including at farm level (communication, hydrological infrastructure, access to local markets)
- Advocacy for diversifying and improving productive activities to reduce risk and increase resilience
- Adoption of traditional and new technologies (irrigation, rainwater harvesting) and
- Innovation schemes for dryland development: SLM, IWRM

Role of the UNCCD & Partners



NAP a tool of national policies for combating desertification and also to mitigate the effects of drought

UNCCD COP 11 adopted an Advocacy Policy Framework (APF) on drought and advocacy to address the key drought issues (decision 9/COP 11)

UN Partner Agencies and networks UNCCD along with WMO, FAO, UNW, CBD and others are cooperating in supporting countries to improve their own decision-making process and develop *National Policies on Drought Management*

UN and International Agencies to promote the establishment of an investment framework to cope drought and desertification at country level. SDGs?

- 1. Mix of strategies for different economic sectors:** bottom-up approach for agriculture; different approaches for other sectors (industry...) as different impacts and responses are found in different sectors.
- 2. Data on socio - economic vulnerabilities.** On poverty and access to resources. Is there such data in your country? What is the understanding of vulnerability and resilience? Coping capacities? Drivers? What is the role of NAPs and national reporting?
- 3. Fostering consistency of national policies (i.e., drought and agriculture) and emerging external drivers** (markets and trade, fiscal, financial, constraints); areas to be addressed by a policy on drought?
- 4. Innovative approach;** A new policy framework needed? (some policies, measures and tools are already in place, only need to be adapted): Start with a preliminary assessment of existing relevant national policies!
- 5. Stakeholder participation:** For policy relevance: Identify capacity needs for addressing drought policies and accountability on implementation at the community / regional level; aim at improving the ability to deliver.

Roundtable discussions:

GROUP B

What are the
drought
vulnerability
causes / reasons
in your country

GROUP A

Who / What is most
vulnerable to
drought in your
country?

GROUP C

What criteria are
used for
prioritizing
vulnerability?



Thank you!