

VULNERABILITY ASSESSMENT – PERSPECTIVES FROM FAO

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VULNERABILITY – TWO DEFINITIONS

- 1. From the disaster risk reduction community:** The conditions determined by physical, social, economic and environmental factors or processes, which increase the **susceptibility** of a **community** to the impact of hazards (UNISDR 2015).
- 2. From the climate change adaptation community:** The degree to which a **system** is **susceptible** to, or unable to cope with, adverse effects of drought. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity (IPCC 2014).



PILLAR 2: VULNERABILITY AND IMPACT ASSESSMENT

GOAL

determine the primary historical, current and, likely, future impacts associated with drought (impact assessment) and to assess the root cause of these impacts, i.e. vulnerability assessment.

OUTCOME: VULNERABILITY MAPPING

The creation of a vulnerability profile for each sector, region, population group or community, i.e. vulnerability maps.



DIFFERENT TYPES OF DROUGHTS

- Meteorological drought;
- Agricultural drought;
- **Hydrological drought**
- **Socio-economic drought.**

Expanding water demands in the new sectors of growing economies are deepening their water deficits.

NOT ONLY agricultural and meteorological drought

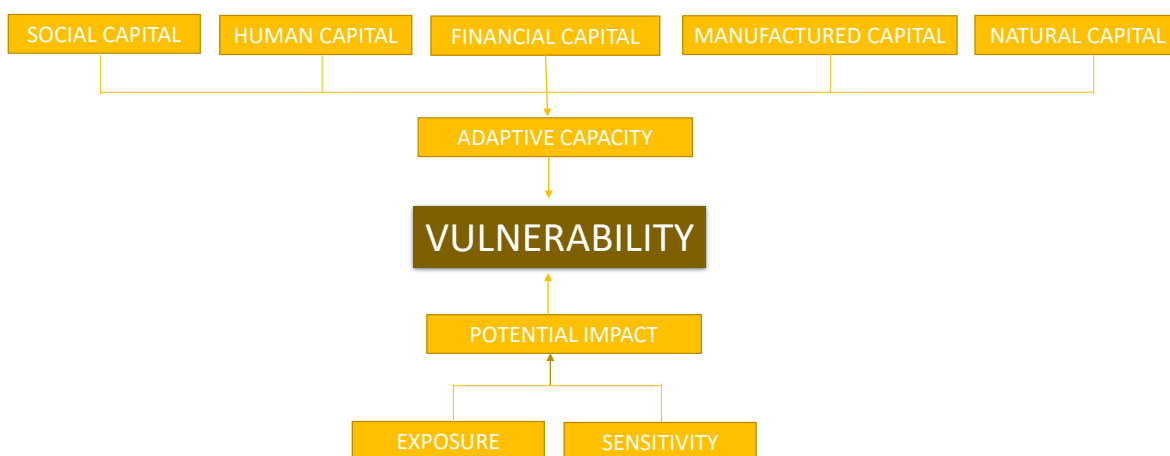


THE IMPORTANCE OF A VULNERABILITY ASSESSMENT

- It helps **identifying the communities and sectors that are at risk**;
- It **gathers info** to be used for **drought preparedness, monitoring, early warning response systems**;
- It **improves the understanding of human and natural processes** that add to drought vulnerability and community resilience;
- It can **provide insights into societal groups typically marginalized** such as women, children, the landless, farmers, pastoralists, and marginalized and indigenous communities.



CONCEPTUAL FRAMEWORK



Source: DRAMP framework (ICCD/COP(13)/19)



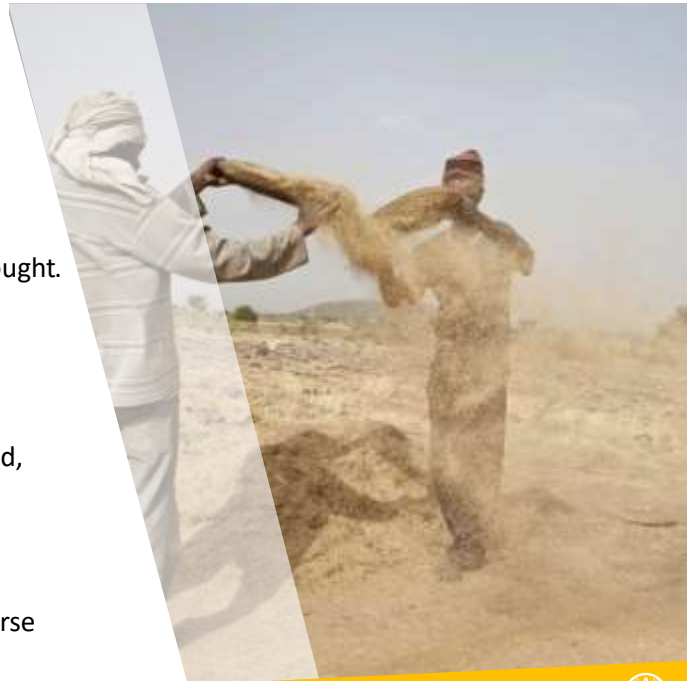
USES OF VULNERABILITY ASSESSMENTS

Early Warning Systems

- Provide an analysis of the frequency and characteristics drought in a given area;
- Indicate the number of people exposed to drought.
- **Emergency Programming-**
- Target assistance to the most severely affected regions and socio-economic populations;
- Calculate the actual quantity of assistance (food, cash or other transfers) required.

Risk and vulnerability reduction

- Produce recommendations to minimize vulnerabilities by avoiding or limiting the adverse impacts of shocks.



FAO AND RISK AND VULNERABILITY ASSESSMENT

1. Self-evaluation and Holistic Assessment of climate Resilience of farmers and Pastoralists (SHARP)
2. Resilience Index Measurement and Analysis (RIMA)
3. Global Livestock Environmental Assessment Model (GLEAM)
4. Tracking Adaptation in Agricultural Sectors (TAAS)
5. Pastoralist Knowledge Hub



SELF-EVALUATION AND HOLISTIC ASSESSMENT OF CLIMATE RESILIENCE OF FARMERS AND PASTORALISTS (SHARP)

It offers a participatory survey-based instrument for farmers and pastoralists to self-assess their climate resilience.

It can be used in farmer/agro-pastoral field schools or by farmers organizations.

It is divided into 5 sections:

- Governance;
- Practices;
- Environment;
- Social;
- Economic.



RESILIENCE INDEX MEASUREMENT AND ANALYSIS (RIMA)

RIMA is a **quantitative approach** that enables a rigorous analysis of how households cope with shocks and stresses.

Comparisons can be made **between different types of households** (for example, male-headed versus female-headed or urban versus rural) in a given country or area.





RIMA – THE CASE OF CHAD

Analysis of **country resilience**

DROUGHT-RELATED RESULTS

HHs' response to drought focussed on **smoothing of assets (sale of livestock):**

- Decrease in food consumption;
- Purchase of low quality food.

RECOMMENDATIONS

- Investing in the protection of farm animals;
- Consider investing in crop diversification;
- Promote communication technologies.



GLOBAL LIVESTOCK ENVIRONMENTAL ASSESSMENT MODEL – GLEAM

It is a global, spatially explicit and biophysical model reproducing all steps of production in a variety of species and production systems.

GOAL

To quantify production and use of natural resources in the livestock sector and to identify environmental impacts of livestock.

GLEAM can be used in impact and vulnerability assessments of droughts, through its feed module.



TRACKING ADAPTATION IN AGRICULTURE SECTORS – TAAS

Flexible and consistent indicator framework for tracking adaptation in agricultural sectors (crops, livestock, forestry, fisheries and aquaculture) at national level.

The methodology consists of four 4 major categories of indicators:

1. Natural resources;
2. Agricultural production systems;
3. Socio-economics;
4. Institutions and policy.

Used for vulnerability reduction and to enhance adaptive capacity



PASTORALIST KNOWLEDGE HUB

It brings together pastoralists and the main actors working with them to create the synergies for dialogue and pastoralist development.

The Hub relies on 3 pillars:

1. A knowledge repository;
2. A network of pastoralist organizations;
3. The facilitation of partnerships with science, governments, NGO's and international organizations.

It is used to empower pastoralists and highlight vulnerabilities.



CONCLUSIONS

- The reduction of drought vulnerability plays a critical role in the fight against drought;
- Many countries lack vulnerability assessments (both at local and national levels);
- The international community is in the position to promote and enhance vulnerability assessment.



THANK YOU

