Strengthening Climate Change and Disaster-Related Statistics:
National Adaptation Planning Processes

Webinar
SGD Data and Statistics Unit
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UNFCCC Decisions on NAPs

**Decision 5/CP7 (2011)**
Objective is to:
- reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience
- facilitate the integration of climate change adaptation into development planning processes and strategies.

✔ Planning for adaptation is a continuous, progressive and iterative process;
✔ Country driven, gender sensitive, participatory, fully transparent, considering vulnerable groups and ecosystems;
✔ Based on and guided by best available science

**CoP 26 NAP decision**
Stock-take by 1 February 2024 on formulating and implementing NAPs.
Where is UNEP supporting NAP processes?

- Plus NAP **Global Support Programme**
- Identifying climate risk and **adaptation priorities**, and integration into development plans & budgets
- **Blue** = approved projects
- **Yellow** = projects under implementation
Zimbabwe National Adaptation Plan

• 5 priority adaptation options in the agriculture sector, estimated at USD 519 millions per year

• Quantified adaptation options up to 2030:
  • Dam rehabilitation and climate smart irrigation - USD 161,454,884
  • Purchase Insurance for areas dependant on rain-fed agriculture – USD 201,947,653
  • Research for drought tolerant varieties and establish CC research grants – USD 13,829,500
Risk and vulnerability factors in Zimbabwe in the agricultural sector

Vulnerability stems from:

• Rising temperatures, changes in precipitation, seasonal shift and length, extreme weather events (droughts, floods, tropical cyclones projected to increase)
• Heat stress on crops and livestock
• Damage to agricultural infrastructure, crops and fields due to extreme weather events
• Increased incidence and severity of pests, diseases and weeds;
• Rates of runoff and soil erosion
• Incidences of waterlogging
• Increase of malaria cases with higher temperature; cholera cases with floodings
• Changes in tree-grass ratios influencing the ability of these ecosystems to provide goods and services to communities
Example of indicators used to measure vulnerability reduction

**Outcome indicators:**

- Increase in agricultural production, productivity – observed
- Reduced vulnerability - index of indicators OR perception-based/qualitative indicator

**Causality:** need to measure indicator progress in the actions leading to reduced vulnerability, e.g.

- Access to extension services
- Access to inputs and capital
- Uptake of climate resilient agricultural methods
- Soil carbon and/or moisture content
- Vegetation coverage on land
- River flows – (5+ years longer time period)

Indicator selection depends on scale of the intervention and timescale of measurement.

Indicators measured at the macro level: limited number, showing national level changes, showing decoupling of loss and damage trends from weather trends over time

Complemented by deep dive analysis at the sector level to understand where to put resources and upscale effective interventions
Why is adaptation and the adaptation gap difficult to measure?

**IPCC TAR (2001):** Climate change adaptation (CCA) is defined as “*adjustments in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities*”. Adaptation – process and outcome.

**IPCC FAR (2013/4)** Risk is caused by the climate hazard, exposure of people to the hazard and their vulnerability status. Vulnerability: financial, physical, social organization, institutions; education, rights/power/entitlements. **Adaptive capacity** = multi-faceted = basket of indicators to measure vulnerability and risk.

- Set the climate vulnerability baseline and the adaptation goal
- Consider that vulnerability comes from different factors.

Adaptation measurement approaches: i) robust decision-making ii) avoided losses from climate hazards; iii) positive targets (# water storage facilities)

ii) Could include development work that addresses or transforms the underlying socioeconomic drivers of vulnerability, adaptive capacity, and resilience
IPCC (Assessment Report No.5): Risk Conceptual Framework
Take-aways

Natural assets play a key part in the climate impact and risk chain. 60% of ecosystem services and up to 70% of regulating services are being degraded or used unsustainably and measuring and maintaining natural capital stocks as they form the basis for current and future climate resilience would be crucial.

Analysis of climate impact chains in different ecosystem contexts, leading to identification of climate risks and the key indicators of vulnerability: environmental, social, and economic. Understanding the key drivers of vulnerability will enable adaptation strategies to be identified, targets established and tracked, and identify which of the 231 SDG indicators are most relevant to vulnerability and adaptation.

Climate baselines need to be tracked along with key indicators measuring vulnerability reduction to assess adaptation progress. National statistical offices could start to track macro-level indicators along with the climate baseline, for example, rainfall patterns and food production. The GGA process could develop complementary research frameworks to carry out deep-dive analyses on progress in reducing exposure and vulnerability to climate change.
São Tomé and Príncipe develops National Adaptation Plan for climate change
Thank you for your attention

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