



Strengthening Climate Services to Manage Risks and Impacts from Climate Variability and Change

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1. Introduction

- ✧ **Climate variability and extremes and their impacts**
- ✧ **Changes in climatic averages and frequency and intensity of extreme events could exacerbate these impacts**
- ✧ **Management of climate-related risks is imperative**
 - Protection of lives, livelihoods, and assets
 - Resource management



1. Introduction cont.

- ✧ **UNDP program on managing climate-related risks**
 - Goal: reduced risks to climate variability and change
 - Approach: address short- and long-term impacts of climate variability and change to prevent disasters and promote development
 - Expected outcome: mainstream climate risk management into country programming and national development planning

- ✧ **Key requirement in climate risk management: climate information**



2. CRM Requirements

a) Climate information

- Historical climate data
- Observable trends
- Climate forecasts: short-, medium-, extended-range, seasonal
- Long-term scenario: decades into the future

b) Delivery mechanism

c) User capacity for climate information application

d) Iterative analyses of risks and options for risk management and adaptation



3. Issues and gaps: Climate services

a) Climate information

- **Observations:** unrecorded observations, lost data sheets, location of data with various institutions within the country, digitization of observations, sparse observation networks
- **Prediction:** requires long and reliable observed data, appropriate climate model, uncertainty, computational resource, trained personnel

b) Delivery mechanism

- **Institutions:** roles, responsibilities, coordination
- **Integration of users:** important in selection of appropriate emission scenarios, dialogue to level off expectations
- **Communication of uncertainty and limitations for application**
- **Updating of projections as new climate change evidence becomes available**



3. Issues and gaps: Users

a) User capacity for climate information application

- Translation into impact outlook and management/ adaptation options
- Managing uncertainty

b) Iterative analyses of risks and options for risk management and adaptation



4. Recommendations

✧ Improve data availability

- Improvement of observation systems
- Data digitization; data rescue
- Data sharing

✧ Capacity building in climate information generation

- Training in climate modeling/ downscaling
- Incentives/ disincentives to retain trained personnel
- Use of more than 1 climate model for more robust ensemble predictions/ projections
- Investment in computing capacity
- Assistance from regional climate centers



4. Recommendations cont.

✦ **Establish mechanisms for delivery of climate information**

- Clear mandates, roles and responsibilities, and coordination arrangements
- Engage with users: user forum, local level dialogues

✦ **Mobilize resources**

- Integration into annual budgets
- Donor support through projects
- Assistance from regional and international organizations



Thank you for your attention

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