



**Climate Proofing
and
Integrated Water Resource
Management tools
for Economic Development**



Outline

1. Economic Development

2. Planning

- Climate Change
- Integrated Water Resource Management (IWRM)

3. Climate Proofing for Development

- Scope
- Analysis & Assessment
- Options for Action

Economic Development

- Economic Development
 - Infrastructure; Social Elements
- Forecasted change in climate:
 - **Exacerbates regional aridity**
 - Disasters & extreme events
 - **Greater weather variability:**
 - Increases Uncertainty, Risk
 - **Resources under increasing pressure**

Knowledge is still "formative"



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2 Planning & Climate Change

- Climate change adaptation:
 - Different levels; (1) national, (2) sectoral; (3) local; (4) project.
- Impact: Multisectoral, **Multiregional**
 - **Context Matters**
 - Agriculture; Energy; Human Settlement & Infrastructure; Health; Water sector...
- Level: National & Group
- Full economic cost of climate change:
 - Beyond what can be computed directly?
 - Uncertainty and risk: add indirect costs

Some parameters = normative

Planning & IWRM

- Implementation is generally centered on a watersheds.
- Multisectoral:
 - social equity:
 - Participatory, all stakeholders
 - economic efficiency:
 - scarce natural resources
 - ecological sustainability:
 - interdependent users



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Climate Proofing: Scope

- Adaptation:
 - Current strategies, policies and programs
 - **INDCs**: also about Adaptation
 - Non-binding; “matching”
- Effect of Current Policies:
 - key ecosystem services & socio-economic sectors
- Expected effect of climate change impacts:
 - Relevant socio economic sectors

National priorities & Sustainable development

Climate Proofing: Analysis & Assessment

- Climate change
 - Impacts: Climate Computer Models (CMs)
 - Socio-economic effects:
 - IAMs: among sectors and across time
 - VA : across the country's geography.
- Among Vulnerable sectors or systems:
 - Actual risks
 - **cross-sectoral** impacts
- Identify:
 - Appropriate adaptation actions
 - Mitigation: more attractive to the Private Sector
 - Eventual opportunities

Climate Proofing: Options for Action

- Key Issues
 - Promote climate change adaptation;
 - Costs: No-Regret, Low-Regret...
 - Planning horizon;
 - Technical skills required: Technology Transfer
...Political and social acceptance
- Impact: Multisectoral, **Multiregional**
 - **Agriculture**: It's not only about "cows", it's about livelihoods.
 - **Health**: ...mortality / morbidity
 - **Energy**: ...Increased demand for cooling, pumping...
 - **Human Settlements, Infrastructure**:adaptation; mitigation co-benefit?
 - **Water**: supply & treatment

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*Thank
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