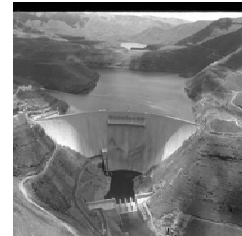


# Addressing Adaptation to Climate variability and Change



*Understanding the role of climate in various human activities*

Dr Buruhani Nyenzi,  
Director, Climate Prediction and Adaptation Branch, WMO  
Bangkok, 7-11 April 2008

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## Impacts of Climate Change Its impacts on, among others, the following areas:

- Water resources (supply, energy, etc)
- Agriculture productivity and Food security
- Natural resources productivity and biodiversity
- Vector- and water-borne diseases
- Coastal zones and sea level rise
- Desertification
- Economic sectors such as tourism, transport, wildlife etc

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## WMO's strategy in addressing impacts of Climate Change

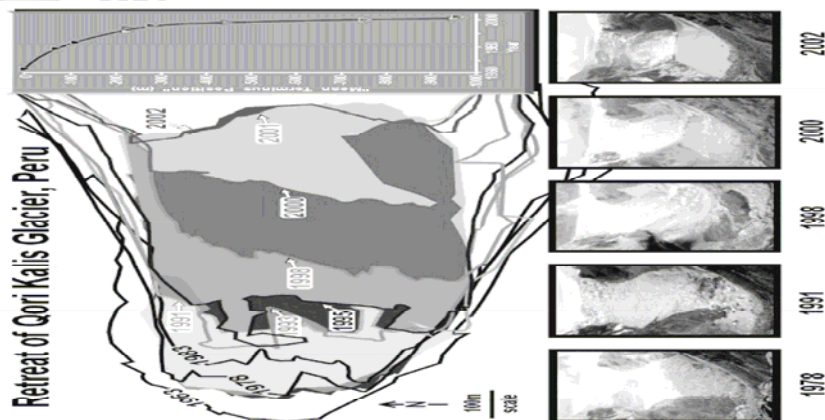
- **Science and monitoring;**
  - *Systematic observation*
  - *Adequate interpretation of climate projections*
  - *Understanding of the role of climate change in various human activities*
  - *Climate monitoring, modelling and prediction*
- **Capacity building and awareness;**
  - *Climate outlook forums where climate experts and users of climate information are trained*
  - *Technological and know-how packages, including training on data rescue and management*
  - *Capacity building activities seminars, workshops*
- **Enhanced partnerships**

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## Science and monitoring: Systematic observation

Photos of the Qori Kalis outlet glacier taken in 1978, 1991, 1998, 2000 and 2002 show the retreat of the ice margin and the development of a lake. A map showing the position of the glacier terminus indicates that in the period between 1963 and 1978, the glacier was retreating on average 4.7 meters per year. Between 2000 and 2002, the average retreat had increased to over 200 meters per year or 40 times faster, and the retreat continues.

*Byrd Polar, 24/03/2005*

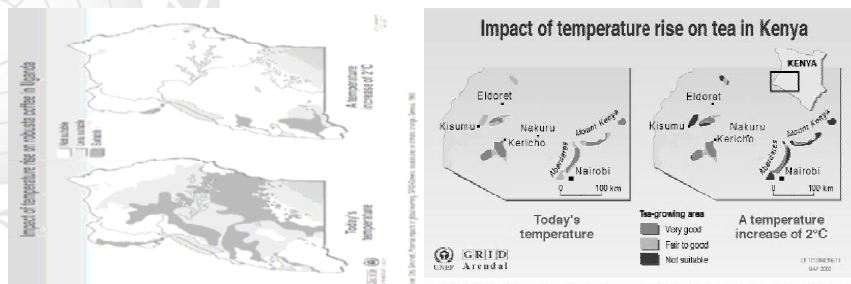


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(Source: Thompson, 2005)

## Adaptation to climate change in African Agriculture

Reduction in soil fertility  
Decreased livestock productivity  
Increased incidence of pest attacks  
Shifts and changes in lengths of growing seasons



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## WMO's contribution to NWP

- Made various contributions in various relevant areas of NWP
- Prepared position papers
- Participated in expert meetings and workshops
- Collaborated with other partners in addressing relevant activities

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## Lessons learned

- Better coordination of data exchange for adaptation purposes
- Defining quantifiable thresholds in various sectors for adaptation planning
- Establishing a demand-driven approach for climate information and data rather than supply driven

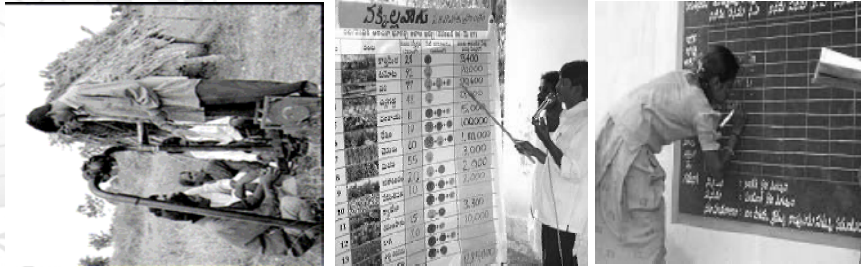
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## Lessons learned

- Capacity building for climate data rescue and management
- NMHSs are source of knowledge for science-based decision making process
- Adaptation needs local expertise, regional climate information, and open exchange of knowledge and data

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## Adaptation needs local expertise, national and regional climate information, and open exchange of knowledge and data



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## Enhanced Partnership

- Global phenomena needs global solution
- Engaging more user sectors to understand their needs
- One UN voice on climate change- a way forward for better partnership and addressing global issues (UN\_CEB)
- Working with Governments and encouraging them to plan for National Strategies for Adaptation to impacts of CV and CC
- Identifying country level stakeholders for partnership in adaptation to CV and CC

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## Some of the Remaining Gaps

- How Financial Mechanisms for adaptation will support NMHSs?
- Global priorities not relevant to national data exchange policies
- Provision of guidance/manuals for efficient use of methods and tools
- Further research needed to develop dynamic tools for emerging requirements
- Capacity building in LDCs
- Reduction of uncertainties in decision making process through user need tailored products
- Integrating climate data into socio-economic data a challenge for adaptation

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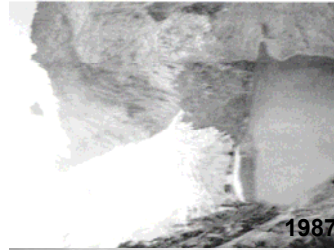
## Current Action Pledges

### International workshops:

- Advances in operational weather systems for fire danger rating
- Adaptation to climate change in West African Agriculture
- CLIPS workshop on communicating ENSO
- CLIPS in Polar Regions
- Training Seminar: climate change adaptation in Tourism Sector (UNWTO, UNEP, WMO, Oxford University)

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# THANK YOU !



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Yanamarey Glacier, Peru, South America