



WMO and the SIDS Programme of Action

World Meteorological Organization (WMO)

Rarotonga, Cook Islands

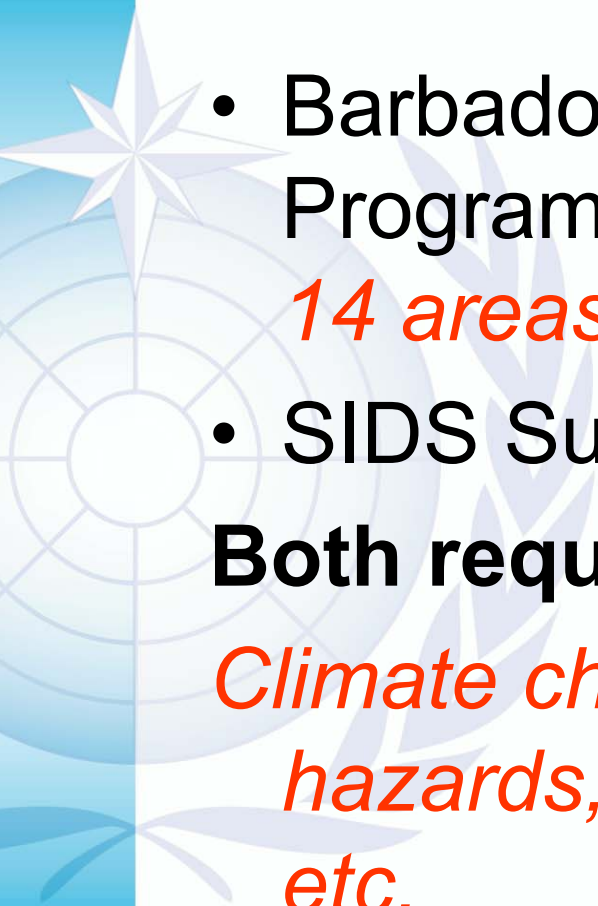
26-28 February 2007

From Barbados to Mauritius and beyond

- Barbados Programme of Action (BPoA), in 1994, *14 areas of priority*
- SIDS Summit in Mauritius, 2005

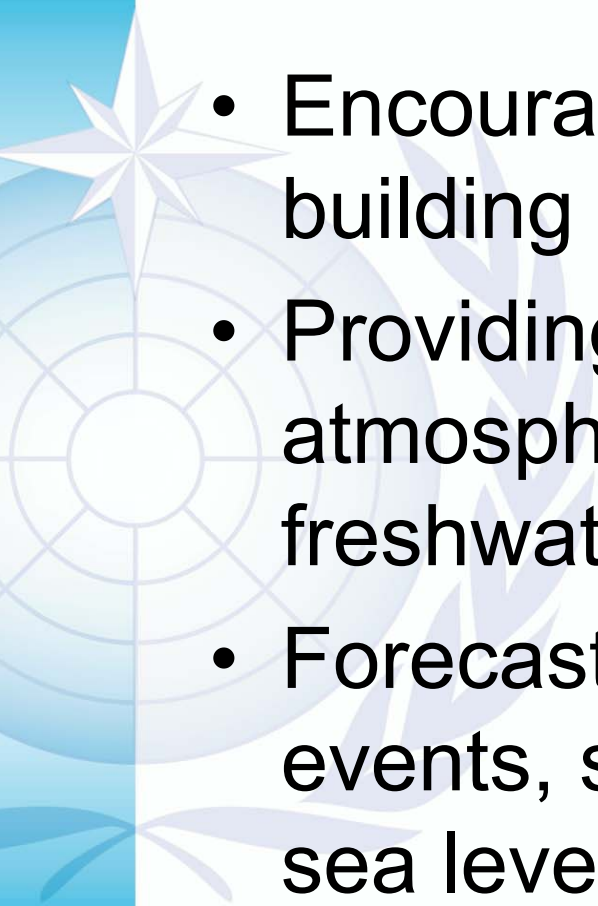
Both require inputs from NMHSs on:

Climate change and sea level rise, natural hazards, energy sources, freshwater, etc.



WMO and SIDS

- Encouraging endogenous capacity building
- Providing observational data on weather, atmospheric composition, the ocean, freshwater resources, satellite data
- Forecasts, warnings of extreme weather events, seasonal predictions, El Nino, sea level rise,



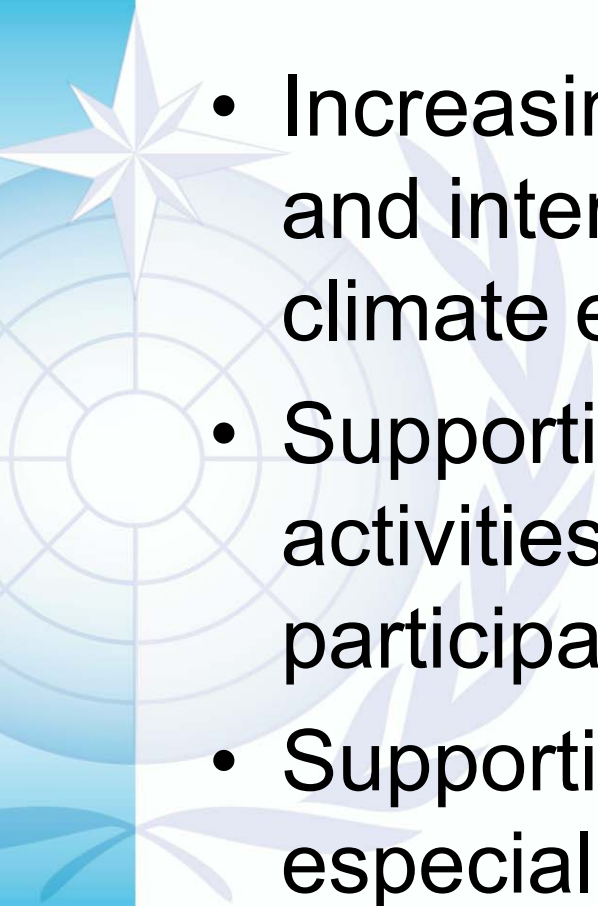
WMO and SIDS

- Ensuring the availability of high-quality data for climate change detection;
- Promoting research on reducing uncertainties in climate change projection
- Increasing accuracy about the socioeconomic impacts of climate change



WMO and SIDS

- Increasing accuracy on the occurrence and intensity of extreme weather and climate events;
- Supporting the IPCC assessment activities and encouraging the participation of developing countries
- Supporting the UNFCCC process, especially through the provision of scientific inputs



WMO and SIDS

- Promoting research in climate variability and change for:
 - *socio-economic sectors*
 - *agriculture*
 - *water-resources management*
 - *energy*
 - *tourism*
 - *environmental protection*
 - *health*



Sea Level Rise

A major threat

Can permanently affect:

- Many of the low-lying islands
- Coastal areas and freshwater sources
- Fisheries and infrastructures
- Energy resources
- Transport and communications

Adaptation is in need of Meteorological data

WMO-IOC-WCRP Workshop

- Workshop on Understanding Sea-Level Rise and Variability, Paris, 6-9 June 2006
- 163 scientists from 29 countries

Scientific findings of the Workshop:

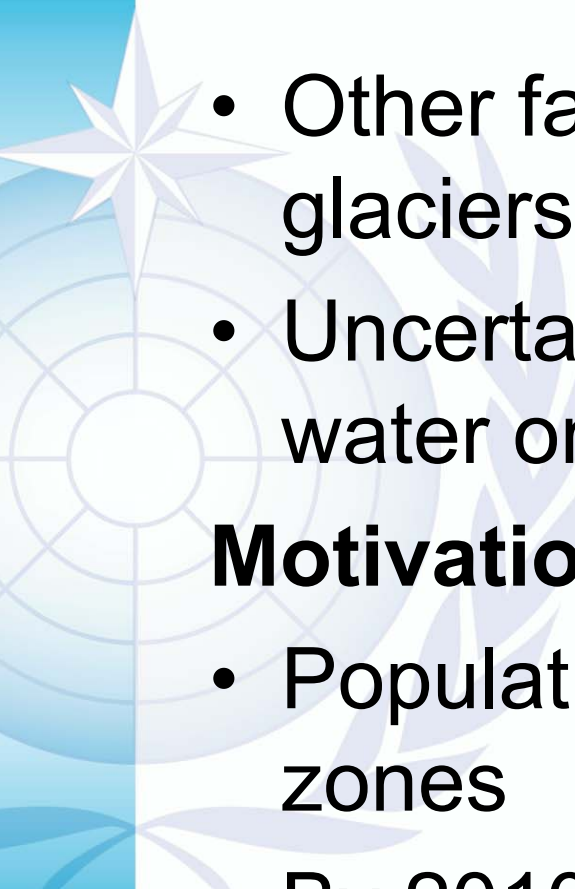
- *Rising rate 3mm/year,*
- *Extent of natural versus anthropogenic factors still unknown*
- *About half of rise attributes to thermal expansion*

WMO-IOC-WCRP Workshop

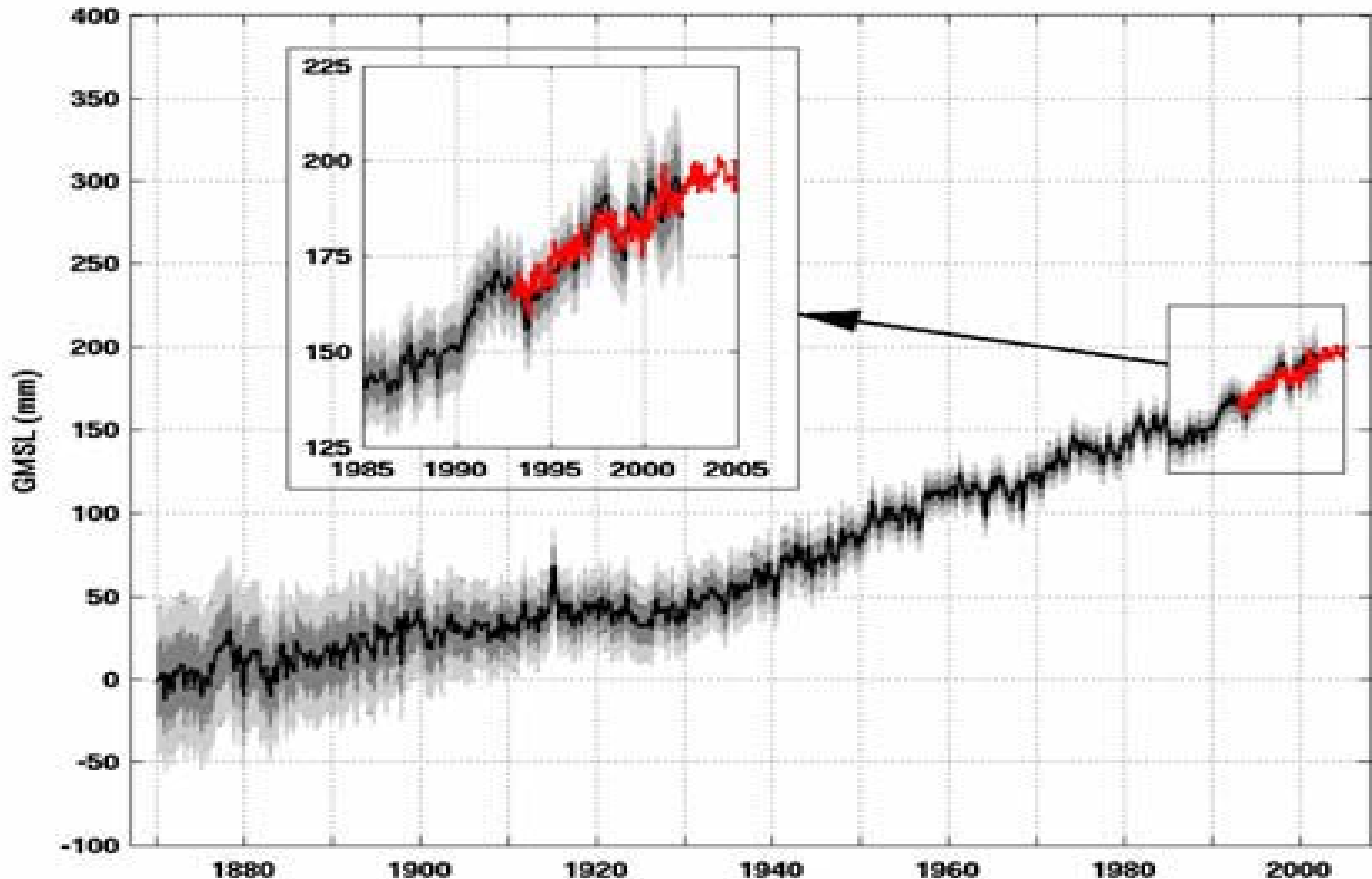
- Other factors include effects of melting glaciers and ice sheets
- Uncertainty in changes in the storage of water on land

Motivation:

- Population growth has changed coastal zones
- By 2010, 20 out of 30 mega-cities will be on the low-lying coasts



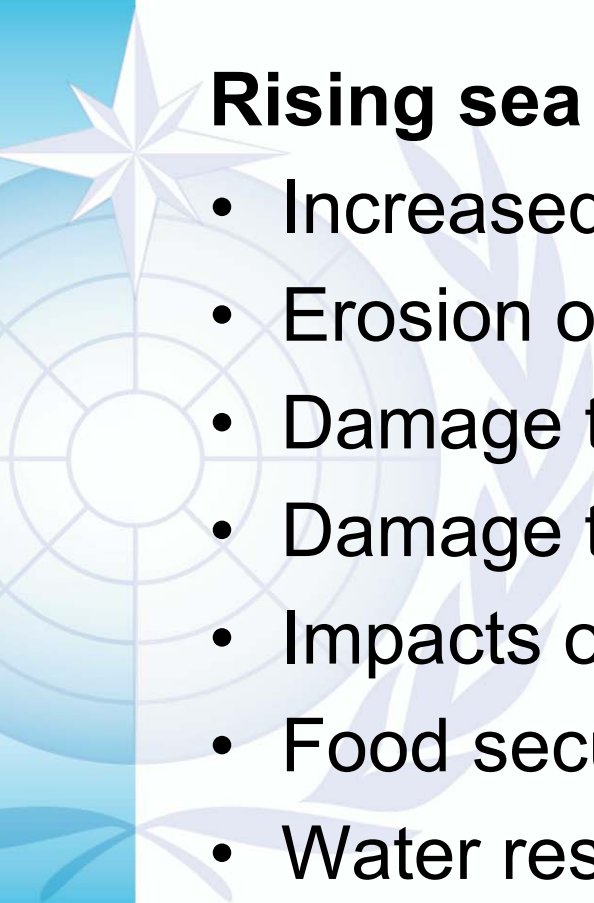
Monthly averages of global mean sea level



WMO-IOC-WCRP Workshop

Rising sea levels in SIDS will contribute to:

- Increased storm surges and flooding
- Erosion of the world's sandy beaches
- Damage to infrastructure
- Damage to coral reefs
- Impacts on the economy
- Food security
- Water resources
- Human health



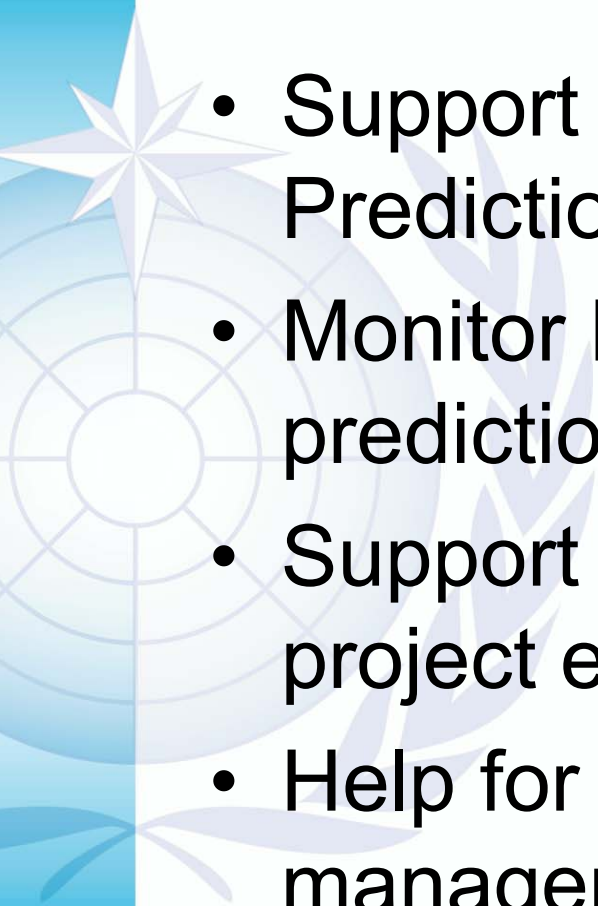
WMO's Specific Role in Adaptation

- Improve understanding of sea-level rise and variability
- Reduce the uncertainties associated with the rise projections
- Adopt more effective coastal planning and management
- Take adaptation measures, e.g. enhanced building codes, cope with flooding
- Minimize the potential losses



WMO's Specific Role in Adaptation

- Support through Climate Information and Prediction Services (CLIPS)
- Monitor El Niño/ENSO for climate prediction
- Support through Data Rescue (DARE) project efficient data analysis
- Help for comprehensive flood management plan



WMO's Role in Adaptation

- Help for drought monitoring and response strategies
- Predict tropical cyclones and landslides
- Help for coastal zone management
- Ensure sustainability of energy generation from renewable sources
- Support sustainable tourism industry

