



World Meteorological Organization

Weather • Climate • Water



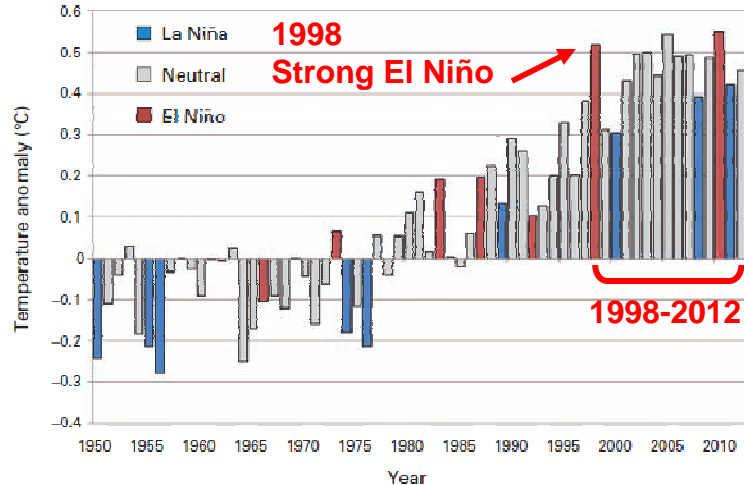
# Presentation to Geneva Permanent Missions

Geneva, 21 June 2013

*Previous meeting: 13 February*

# State of the global climate

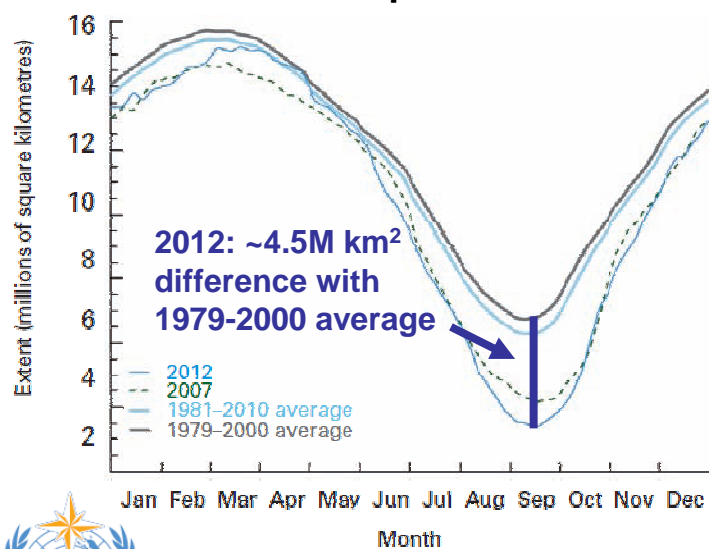
Temperature anomaly



## WMO final *Statement on the State of Global Climate 2012* released on 2 May 2013

- First 12 years of 21st century among the top 13 warmest years in 163 years on record
- Global combined land and sea surface mean temperature for 2012 (January-December) at  $0.45^{\circ}\text{C} \pm 0.11^{\circ}\text{C}$  above the 1961-1990 annual average of  $14.0^{\circ}\text{C}$
- 2012 ninth warmest year since 1850

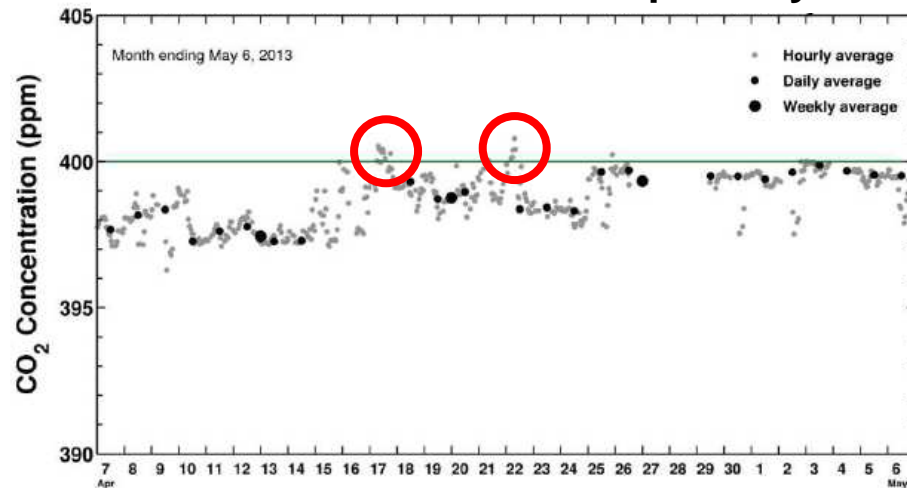
Northern hemisphere sea ice extent



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# CO<sub>2</sub> concentration

CO<sub>2</sub> conc. at Mauna Loa April-May 2013



GAW stations

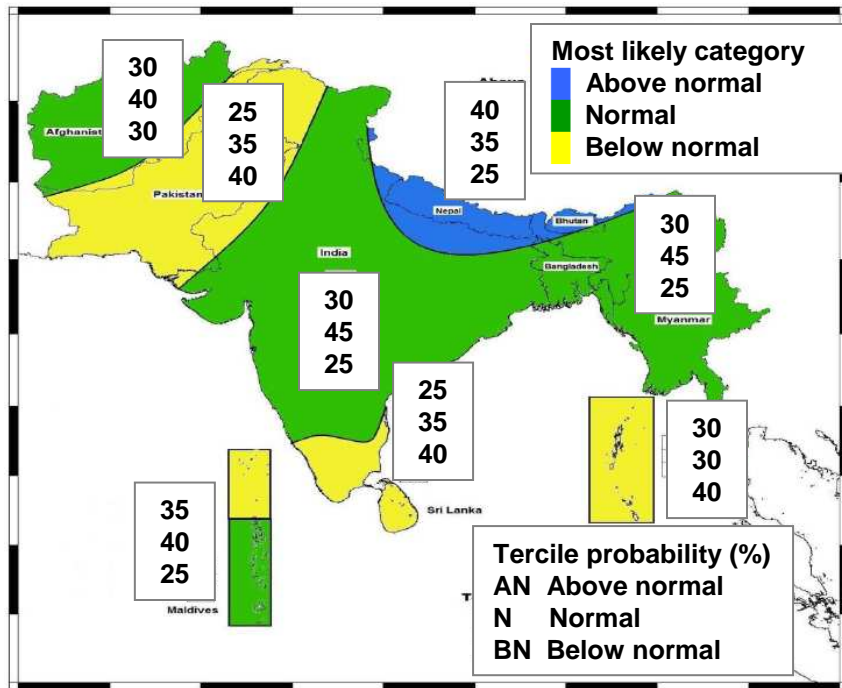
**Observed concentrations of CO<sub>2</sub> crossed 400 parts per million threshold at several Global Atmosphere Watch (GAW) stations**

- CO<sub>2</sub> responsible for 85% increase in radiative forcing in the last 10 years
- Between 1990 and 2011, 30% increase in radiative forcing because of GHGs
- At current increase rate, global annual average CO<sub>2</sub> concentration to cross 400 ppm threshold in 2015/2016

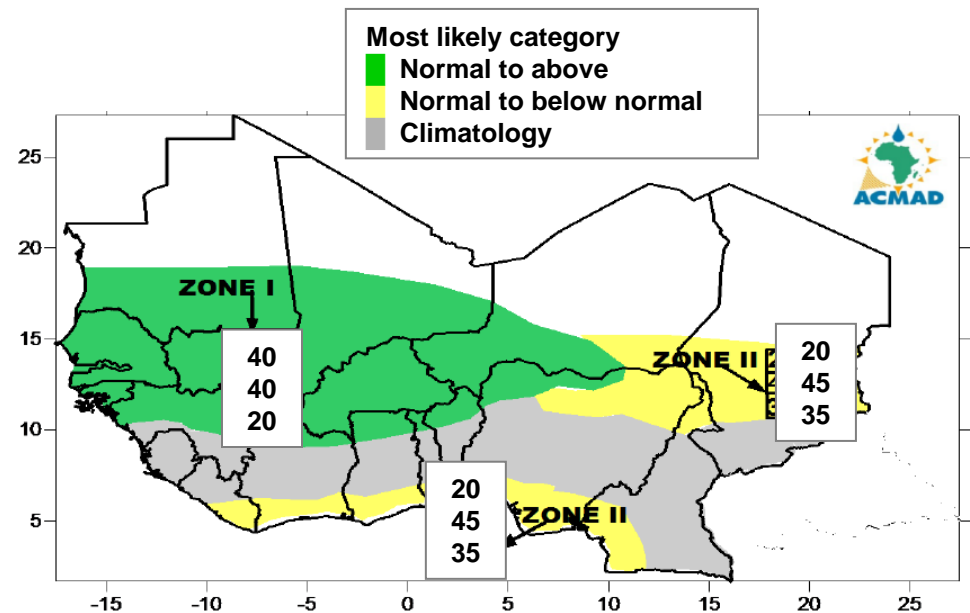


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# Climate Outlook Forums



Consensus outlook for 2013  
Southwest Monsoon Rainfall



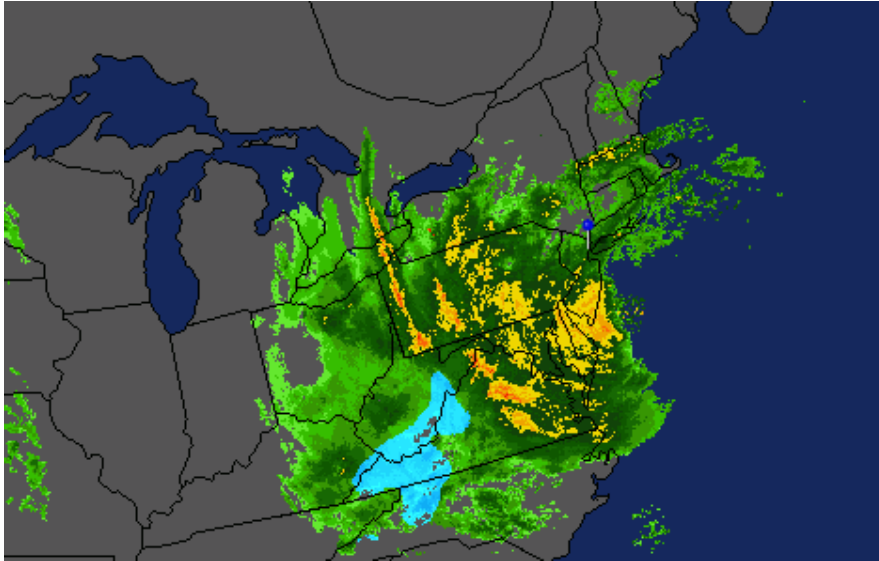
2013 summer climate  
outlook for West Africa,  
Chad and Cameroon

**Regional climate assessment and predictions critical for  
risk management and adaptation to climate change**



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# Lessons from 2012 Atlantic hurricane season



**WMO Hurricane Committee reviewed procedures for hurricane and tropical storm watches and warnings**

**Above-average tropical cyclone activity and formation of 19 tropical storms, of which 10 became hurricanes**

- **Numbers of tropical storms and hurricanes above the long-term average (1981–2010) of 12 and 6, respectively**
- **Two of the hurricanes – Michael and Sandy – became major hurricanes**



# Recent extreme events

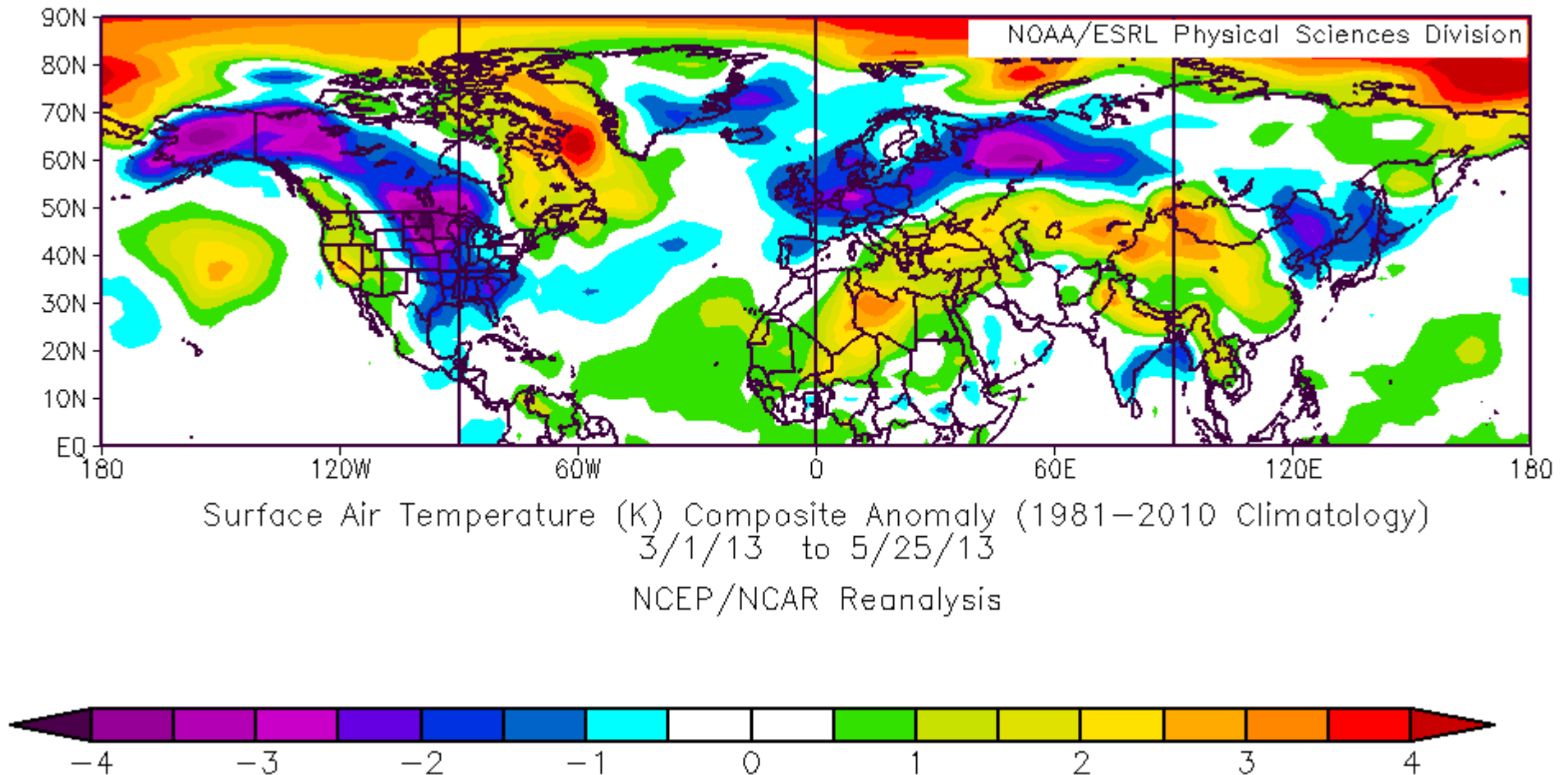


**Cyclone Mahasen impacted the Bay of Bengal on 13 May 2013, causing about 100 dead and over USD 5 million of damage**



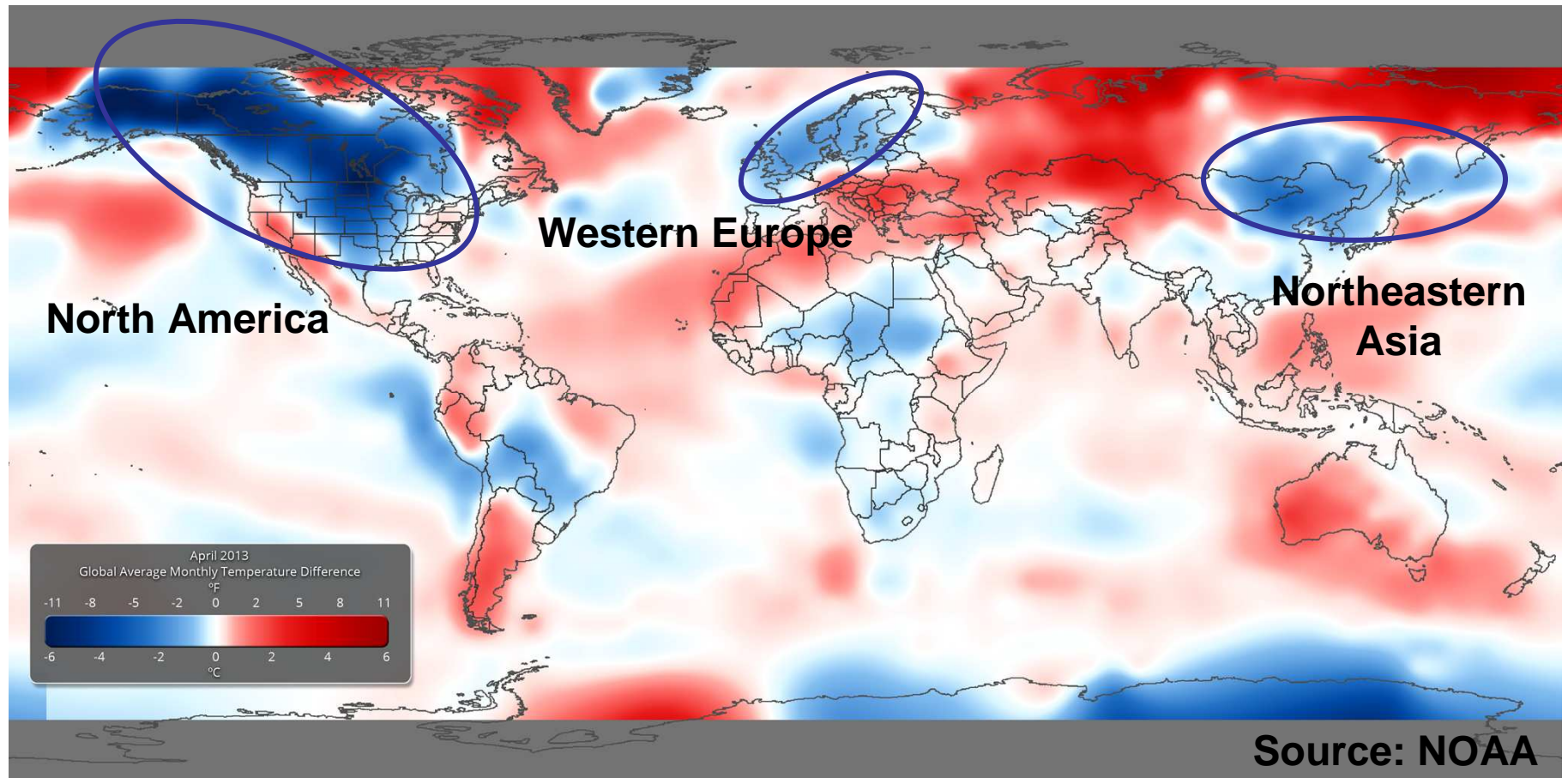
**The May 18–21, 2013 tornado outbreak in the USA caused about 30 dead and damages for USD 2-5 billion**

# Temperature anomalies in Spring 2013



**The combined global land and ocean average surface temperature for 1<sup>st</sup> March – 25<sup>th</sup> April 2013 was the 13<sup>th</sup> warmest on record since 1880, with significant regional variations especially for North America, Western Europe and Northeastern Asia**

# Temperature anomalies in April 2013



The combined global land and ocean average surface temperature for April was the 13<sup>th</sup> warmest on record since 1880, with significant regional variations especially for North America, Western Europe and Northeastern Asia



# Recent and forthcoming WMO sessions

- **16<sup>th</sup> Session of Regional Association IV (North America, Central America and the Caribbean) (Willemstad, Curaçao, 12–19 April 2013)**
- **65<sup>th</sup> Session of WMO Executive Council (Geneva, 15–23 May 2013)**
- **1<sup>st</sup> Session of the Intergovernmental Board on Climate Services (Geneva, 2–5 July 2013)**
- **16<sup>th</sup> Session of Regional Association VI (Europe) (Helsinki, Finland, 11–17 September 2013)**



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# Regional Association IV

North America, Central America  
and the Caribbean



**RA IV – 16 held on  
12-19 April 2013 in  
Willemstad, Curacao**

- Regional Strategic Operating Plan for 2016-2019
- Implementation plan for the WMO Integrated Global Observing System (WIGOS)
- Priorities:
  - Disaster risk reduction
  - Aviation
  - Marine meteorology, climate services and WIGOS
- Discussions on lessons learned from Hurricane Sandy and rehabilitation of Haiti's national meteorological and hydrological services



**Sixty-fifth Session of WMO Executive Council  
Geneva, 15–23 May 2013**

# Management, finances and administration

- **Ninth unqualified statement by External Auditor in a row**
- **Preliminary discussion**
  - **Strategic and operational planning 2016-2019**
  - **Budget for 2016-2019**
- **Significant improvements in efficiency of EC-65**

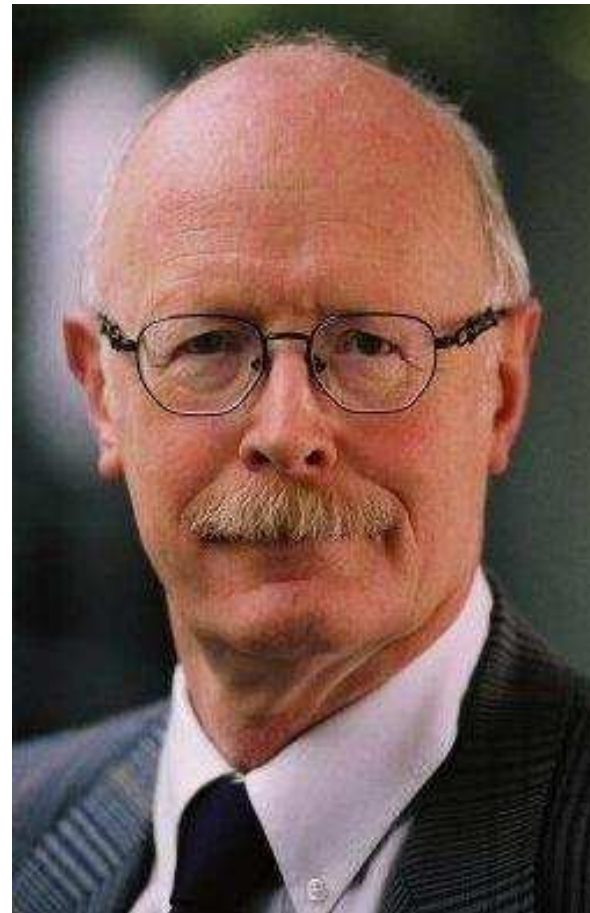




# IMO Prize and other awards



**Prof. Zaviša Janjić**  
**Serbia-USA (2012)**



**Dr. Tillmann Mohr**  
**Germany (2013)**



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# Global Framework for Climate Services



**About 100 nominations of members received for the Intergovernmental Board**

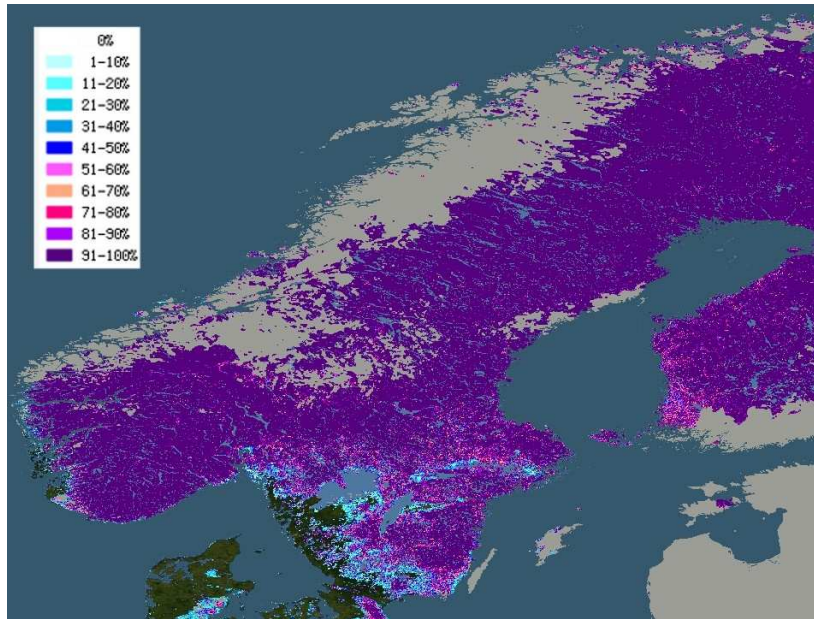
- **GFCS cross-cutting to WMO programmes and not duplicating existing structures**
- **First draft of White Paper on climate data policies**
- **Additional pledges made at EC by Australia, China, Switzerland**

# Observing systems



- Further progress is needed with the WMO Integrated Global Observing System, to be operational in 2016
- Key contribution to GFCS, disaster risk reduction and aeronautical meteorology
- Strengthened flow of data from satellites crucial to the development of numerical weather models

# Research



Snow coverage on Sweden on 1<sup>st</sup> April 2013

Through the “Global Cryosphere Watch”, the cryosphere is an inherent part of WMO meteorological, hydrological, and oceanographic services

- Top priority for increased understanding of changes in Earth, atmosphere and oceans
- WMO Global Atmospheric Watch crucial to monitoring of greenhouse gases
- Research and predictions into the changing climate of polar regions
- ICSU’s “Future Earth”
- MoU with Republic of Korea for WCRP-WWRP Sub-seasonal to Seasonal Prediction Project Office on Jeju Island



# Service delivery



**Cooperative mentoring and twinning arrangements to meet ICAO requirements**

- **Aeronautical meteorology crucial to aviation safety and efficiency**
- **Remaining challenges to meet ICAO Quality Management System and standards for personnel competency**
- **Call for an enhanced role of WMO marine meteorology and oceanography activities**

# Disaster risk reduction

## Number of Climate-related Disasters Around the World (1980-2011)

 **3455**  
**FLOODS**

 **2689**  
**STORMS**

 **470**  
**DROUGHTS**

 **395**  
**EXTREME TEMPS**



The United Nations Office for Disaster Risk Reduction  
<http://www.unisdr.org>

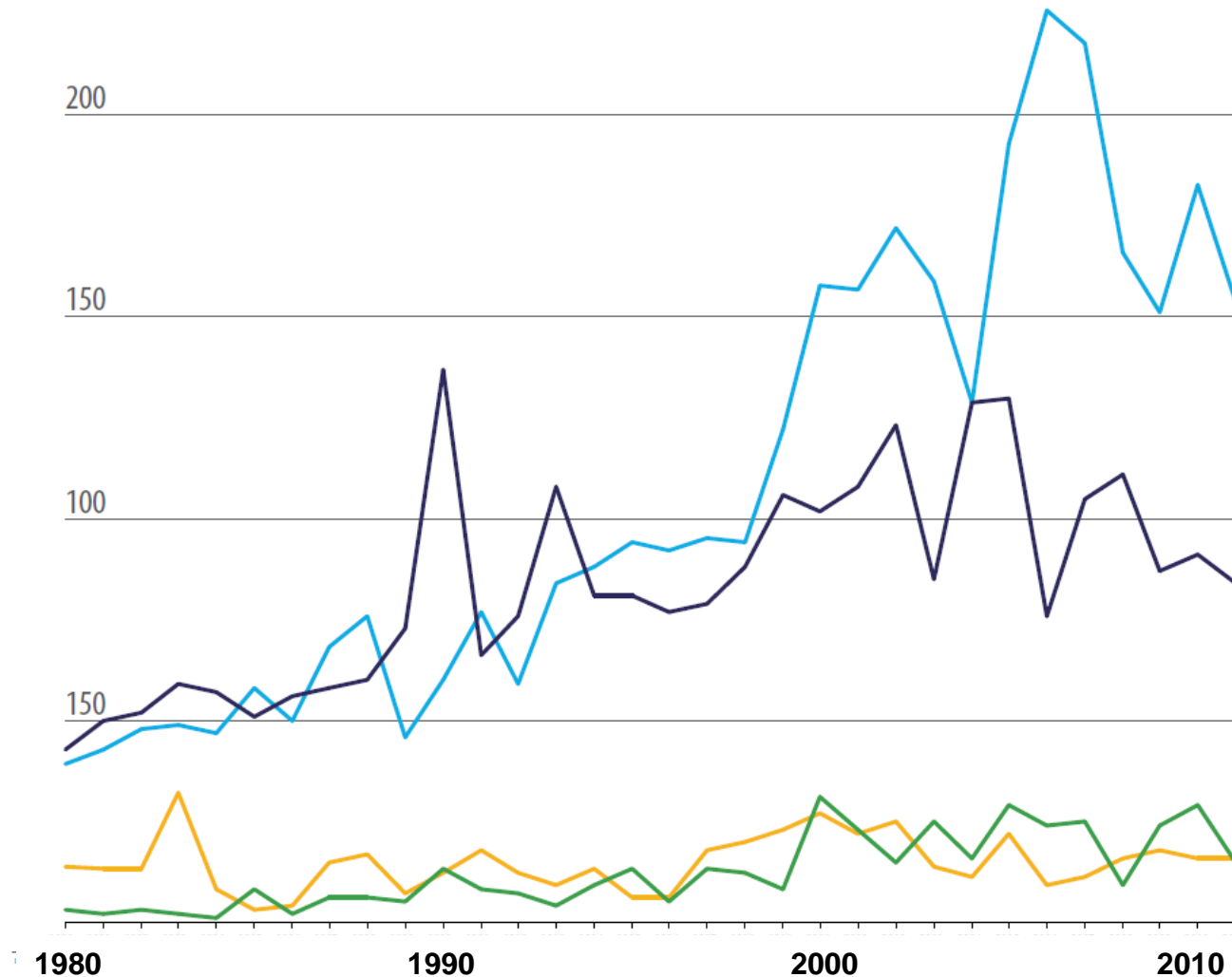
Created on 13 June 2012

DATA SOURCES

EM-DAT - <http://www.emdat.be/> - The OFDA/CRED International  
Disaster Database; Data version: 13 June 2012 - v12.07

Humanitarian Symbol Set (2008):

<http://www.unghw.org/map/guideline.php>



# Third WMO Gender Conference (2014)

## *Gender Dimensions of Weather and Climate Services: The Benefits of Working Together*



**Contribution to the  
implementation of the  
WMO Policy on Gender  
Mainstreaming & UNFCCC**

- Follow-up to the WMO Women Conferences of 1997 and 2003 and Gender Forum at WCC-3
- In collaboration with FAO, ITU, IUCN, UN Women, UNESCO, UNFCCC, WHO...
- Focus on food security, water management, health and disaster risk reduction
- Participants: meteorologists, hydrologists, climatologists from WMO Members



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# Partnerships



- **UN system: 67<sup>th</sup> UNGA Resolutions, post-2015 development agenda**
- **GFCs (WHO, ISDR, FAO, WFP, UNESCO, UNDP, WB, IFRC...)**
- **UN Conventions (UNFCCC, UNCCD)**
- **UN coordination mechanisms (UN-Water, UN-Energy, UN-Oceans)**
- **UNESCO International Hydrological Programme**



# Communication



- **The National Meteorological and Hydrological Services – an authoritative voice**
- **The value of the media**
- **From websites to social media**
- **Investing in communications**
- **Disseminating IPCC 5<sup>th</sup> Assessment Report**

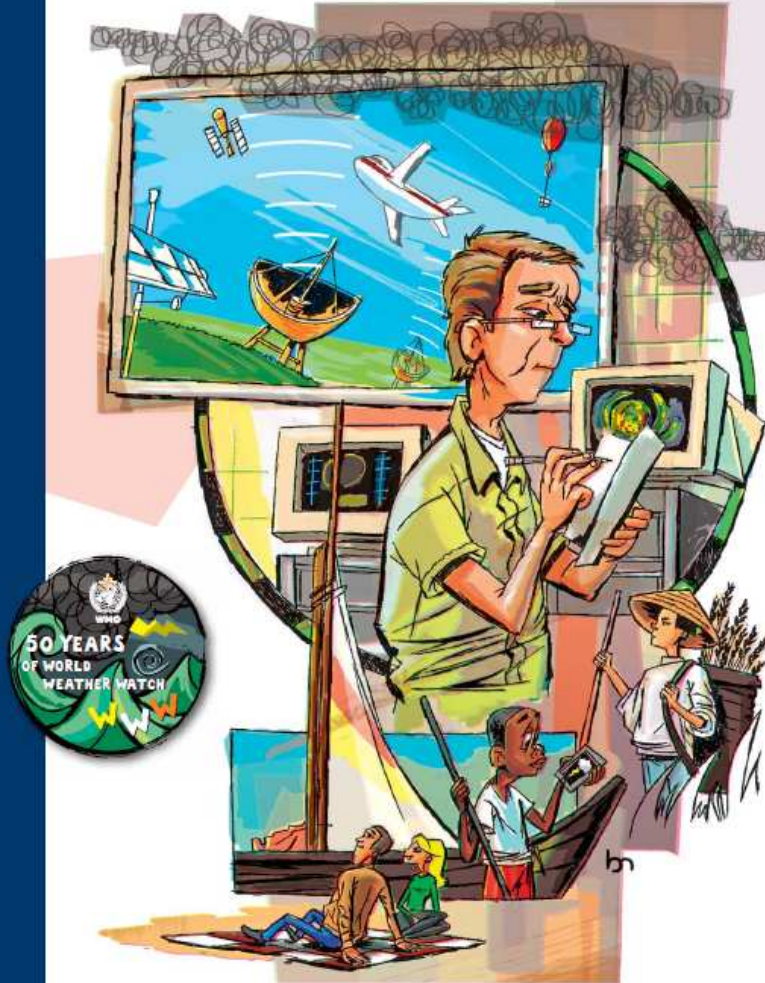
# **World Meteorological Day**

**2013**

***Celebrated on 21<sup>st</sup> March***

**2014: “Weather and climate:  
engaging youth”**

**2015: “Climate knowledge  
for climate action”**



**WATCHING THE WEATHER  
TO PROTECT LIFE AND PROPERTY**

CELEBRATING 50 YEARS OF WORLD WEATHER WATCH



World  
Meteorological  
Organization  
Weather · Climate · Water

WMO-No. 1107



# HIGH-LEVEL MEETING ON NATIONAL DROUGHT POLICY

**Towards More Drought Resilient Societies**

**International Conference Center (CICG), Geneva**

**11 - 15 March 2013**



**World  
Meteorological  
Organization**  
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## **A major contribution to GFCS**

- **Scientific Segment, High-Level Segment**
- **Outcome declaration**
- **Integrated Drought Management Programme with Global Water Partnership**
- **National Drought Management Policies Initiative with UNCCD - FAO**



United Nations Convention  
to Combat Desertification



UNITED NATIONS DECADE FOR DESERTIFICATION AND THE FIGHT AGAINST DESERTIFICATION



# **Global Platform** Fourth Session **for disaster risk reduction** Geneva, 19-23 May 2013

- WMO contribution
  - Side Event on “Benefits of Climate Services for Managing Disaster Risk for Sustainable Growth”
  - Consultative Event on “Adaptation and DRR: Creating a Coherent Approach to Climate Change”
  - Informal Plenary on the Post-2015 Framework
  - Feature Event on “Drought Resilience in a Changing Climate”
  - High-Level Dialogue Session
  - UN Leadership meeting on DRR for Resilience



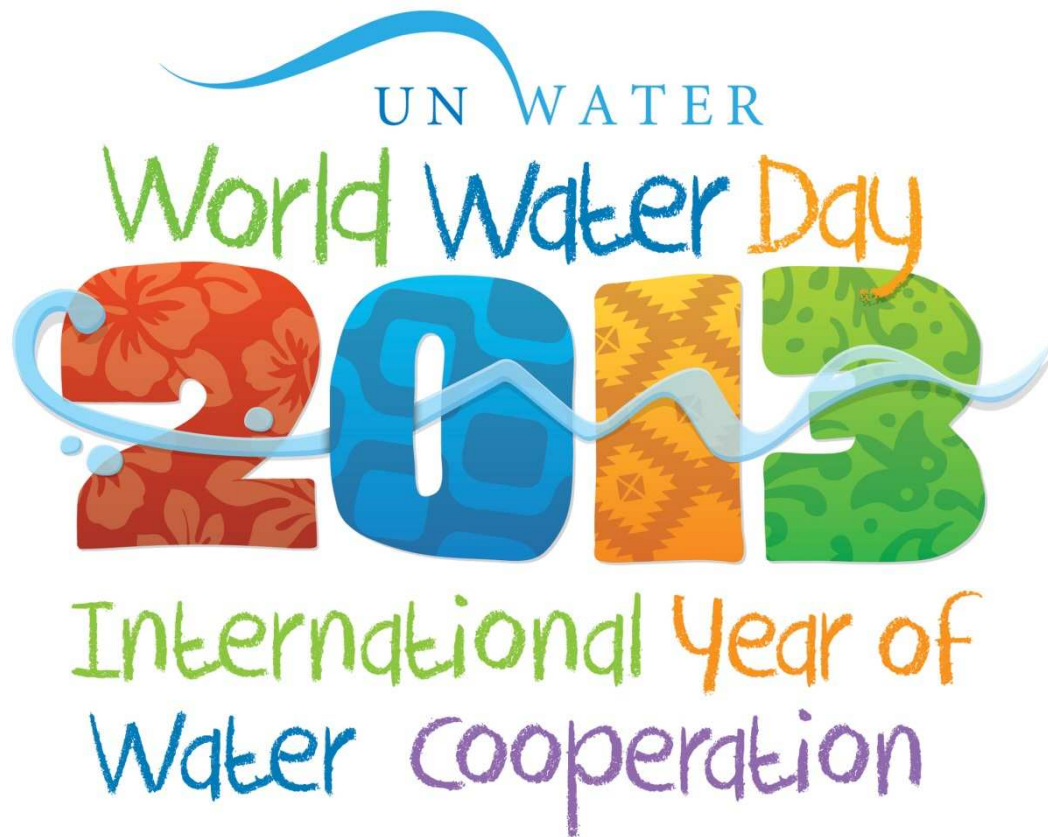
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- UN-Water is the United Nations coordination mechanism for freshwater and sanitation
  - **31 UN agencies, programmes and funds**
  - **To “maximize system-wide coordinated action and coherence”**

# UN-Water is the platform for the International Year of Water Cooperation



- High-level events in The Hague and in New York on March 22<sup>nd</sup> (World Water Day)
- Global campaign, local celebrations!



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# **The UN-Water family is a key actor in the MDG framework**

- **Through its Members and Partners, technical assistance and projects on the ground**
- **Monitoring progress on the drinking-water and sanitation MDG Target**
  - **Drinking-water objective already achieved, but still almost 800 million people without access to an improved water source, many more without access to a safe and sustainable water source**
  - **Sanitation objective seriously lagging behind. 1.1 billion people still defecating in the open**



# UN-Water monitors and reports on the status of the sector

- World Water Development Report
- UN-Water GLAAS
- WHO/UNICEF Joint Monitoring Programme
- Status report on water resources management
- Emerging issues:
  - Water “security”, wastewater management



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# UN-Water supports the post-2015 and SDGs process

- **Coordination of the Global Thematic Consultation on Water**
- **Evidence to inform Member States on possible water-related targets and indicators**  
(e.g. Technical Support Team Issues Brief)
- **Three main dimensions proposed**
  1. Water supply, sanitation and hygiene
  2. Water resources management
  3. Wastewater management
  - **Crosscutting issues** (human rights, equity, gender, governance, sustainable financing, climate change)



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**Gracias**

谢谢

**Merci**

**Thank you**

**спасибо**