# WMO's Strategies and Plans for Climate Change Response

VEATHER CLIMATE WATER TEMPS CLIMAT EAU

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#### WMO OMM

World Meteorological Organization Organisation météorologique mondiale

### **Extreme Weather and Climate Conditions**

Asia region particularly hard hit by successive weather and climate-related hazards, e.g. tropical cyclones, floods, droughts, sand and dust storms and heatwaves.



Satellite imagery from 28 October 2020. The 3 systems pictured here were closely followed by Tropical Storm Etau and Typhoon Vamco.

*Source: JMA/NOAA/CIRA Himawari-8* 



### **Extreme Weather and Climate Conditions**



- Left Panel: Despite La Niña conditions, 2020 was one of the warmest years on record. Source: Met Office
- **Right Panel:** Total precipitation in Jan-Sep 2020, expressed as a percentile of the 1951-2010 reference period. Areas shaded light (dark) green are in the wettest 20% (10%) of years in the reference period while areas shaded light (dark) brown are in the driest 20% (10%).

Source: Global Precipitation Climatology Centre (GPCC)



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### The 2030 Agenda for Sustainable Development





Source: United Nations



#### Systematic Observations Financing Facility (SOFF) The Basic Structural Problem of Data Exchange

WMO Convention and Paris Agreement implicitly assume that observations is solely a national responsibility SOFF will support the generation and exchange of basic surface-weather and climate observations





- <u>Ability to observe</u> (left panel): Observing systems in countries depicted in red fail to meet minimum observations requirements for weather and climate analysis and prediction.
- <u>Ability to pay</u> (right panel): Affordability of observing responsibility (GDP/km2 of surface area) of countries in yellow up to ten million times higher than for countries in dark blue.

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#### Water and Climate Coalition UN SDG 6, The Global Challenge of Water Stress



#### **Initial Partners in the Water and Climate Coalition**



### Multi-Hazard Early Warning Systems Disaster Risk Reduction

Not all Members are fully equipped with capacities to deliver authoritative warnings on a variety of hazards at relevant temporal and geographical scales



Green shows countries where at least ONE CAP feed TC Eloise landfall; Mozambique, 23 Jan 2021 is available

Source : Jason Ferguson

WMO Global Multi-Hazard Alert System (GMAS) Framework aims to:

- Provide support to Members in developing their capacities in warning services.
- Enable early action to mitigate impacts of various hazardous events.
- Increase visibility and recognition of Members through their authoritative service delivery.



### **Complementing WMO Technical Activities**

Capacity-development activities complement technical activities, e.g. Regional Climate Outlook Fora (in Asia: EASCOF, SASCOF, ASEANCOF, FOCRAII).

Regional technical activities facilitate interaction between relevant agencies, policymakers, and climate information users in key economic sectors.



Map depicting RCOFs organized by WMO in collaboration with regional partners.



## State of the Climate Report for Asia 2020

#### Physical aspects: climate indicators and extreme events in 2020

#### **Risks and related impacts in 2020**

- Agriculture and food security
- Health
- Population displacement
- Ecological aspects
- Economy and development

#### **Policy aspects (long-term)**

- The impacts of climate change
- Gaps and investment needs in climate services
- Climate action: opportunities and benefits







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## Thank you



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