



WORLD  
METEOROLOGICAL  
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# UN Early Warnings for All Initiative MHEWS

March 2023

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# One Request

***“Today I announce the United Nations will spearhead new action to ensure every person on Earth is protected by early warning systems within five years.*”**

***I have asked the World Meteorological Organization to lead this effort and to present an action plan to achieve this goal at the next UN climate conference, later this year in Egypt.”***



*António Guterres, Secretary-General of the United Nations, 23rd March 2022*

# Early Warning a Proven Adaptation Measure

- Extreme weather and climate events wreak heavy toll and lead to hundreds of billions of dollars in economic losses
- Early warnings save lives and provide a tenfold return on investment
- IPCC's Sixth Assessment Report on Impacts, Adaptation, and Vulnerability highlights disaster risk management and early warning systems as an effective adaptation option
- Early warning system:  
An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events. (Resolution 69/284, UNGA)



# MHEWS pillars



## Disaster risk knowledge

Systematically collect data and undertake risk assessments

- Are the hazards and the vulnerabilities well known by the communities?
- What are the patterns and trends in these factors?
- Are risk maps and data widely available?



## Detection, observations, monitoring, analysis and forecasting of hazards

Develop hazard monitoring and early warning services

- Are the right parameters being monitored?
- Is there a sound scientific basis for making forecasts?
- Can accurate and timely warnings be generated?



## Preparedness and response capabilities

Build national and community response capabilities

- Are response plans up to date and tested?
- Are local capacities and knowledge made use of?
- Are people prepared and ready to react to warnings?



## Warning dissemination and communication

Communicate risk information and early warnings

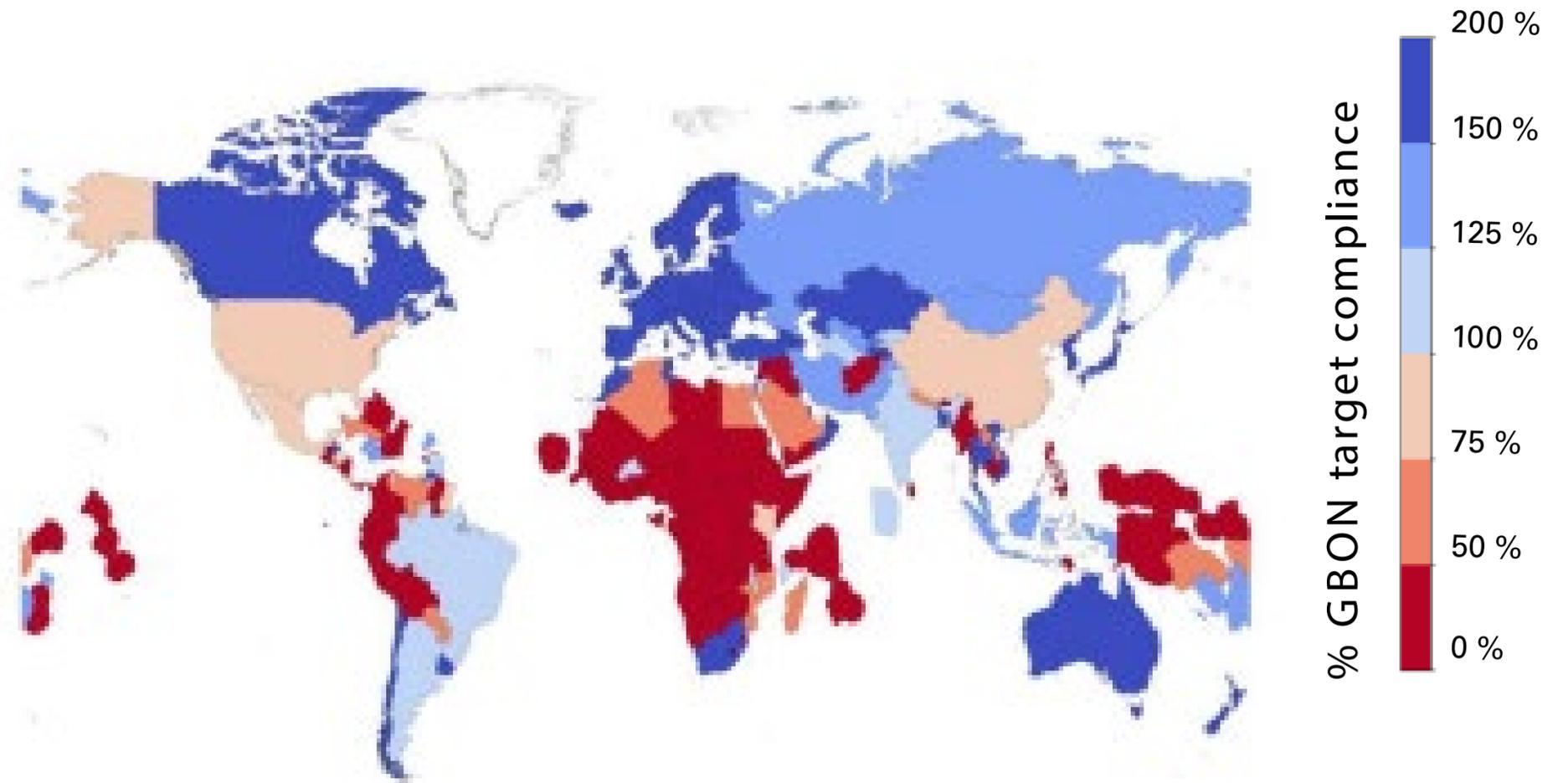
- Do warnings reach all of those at risk?
- Are the risks and warnings understood?
- Is the warning information clear and usable?



# Early Warning Gaps Remain Globally

Significant gaps remain in vital underpinning observations, especially in Africa, Small Island Developing States (SIDS) and Least Developed Countries (LDCs)

## Surface Reporting Density



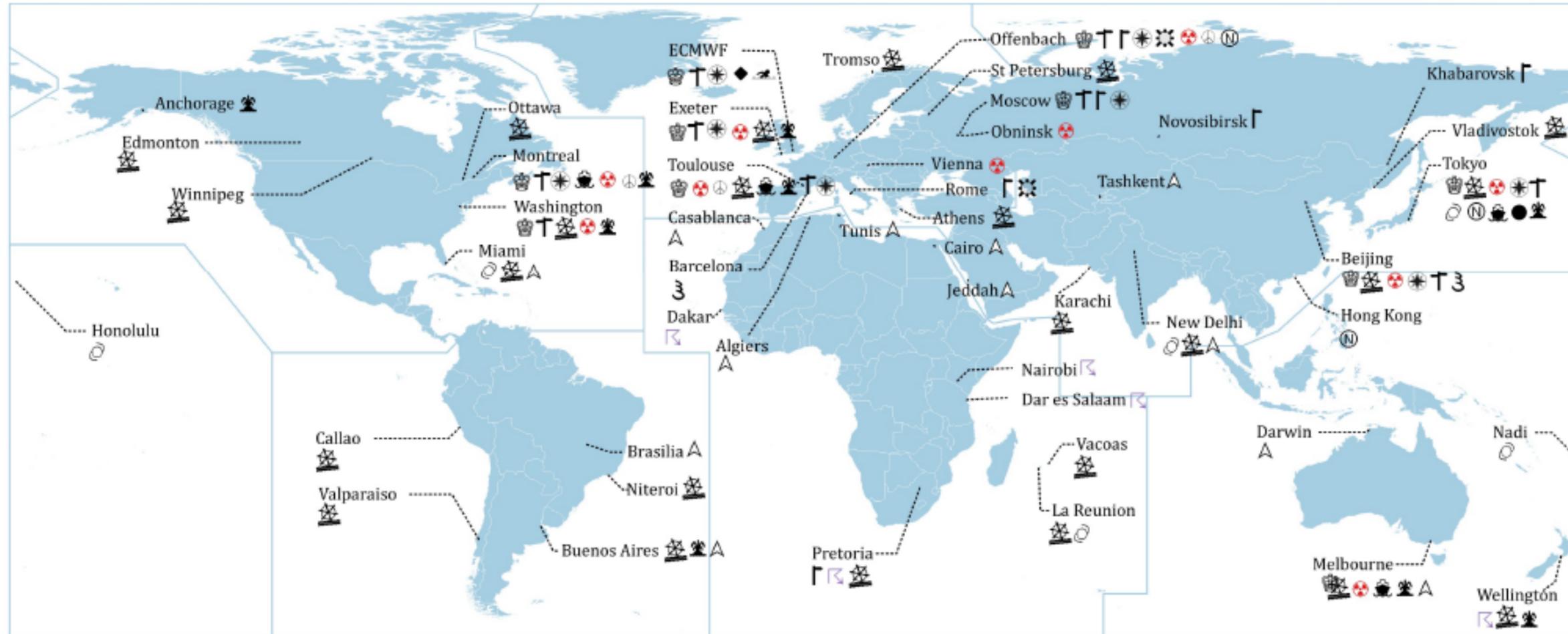
Stations reporting 30% of GBON requirements at least 60% of time in Jan 2022

# Global Data Processing and Forecasting System

## WMO Designated Global Data-processing and Forecasting System Centres

- Nowcasting to medium-range prediction

Updated on 22 July 2021



Legend (The number in parenthesis indicates the number of designated Centres)

- |   |  |  |
|---|--|--|
| ☉ World Meteorological Centre (WMC) (10)  | 🌊 RSMC Numerical Ocean Wave Prediction (4)     | ☄ RSMC Sand and Duststorm Forecasts (2)              |
| △ RSMC* Geographic Specialization (12)    | Ⓝ RSMC Nowcasting (3)                          | 🌋 ICAO designated Volcanic Ash Advisory Centres (9)  |
| ⤴ RSMC Global Deterministic NWP** (9)     | 🌪 RSMC Regional Severe Weather Forecasting (5) | 🚢 RSMC Marine Meteorological Services (24)           |
| ⊛ RSMC Global Ensemble NWP (8)            | 🌀 RSMC Tropical Cyclone Forecasting (6)        | ◆ Lead Centre for Deterministic NWP Verification (1) |
| ⌒ RSMC Limited-Area Deterministic NWP (6) | ☢ RSMC Nuclear Emergency Response (10)         | ● Lead Centre for EPS Verification (1)               |
| ⚡ RSMC Limited-Area Ensemble NWP (2)      | ☪ RSMC Non-Nuclear Emergency Response (3)      | 🌊 Lead Centre for Wave Forecast Verification (1)     |

\* RSMC stands for Regional Specialized Meteorological Centre

\*\* NWP stands for Numerical Weather Prediction

Disclaimer







# EW4ALL Current Status and Future Developments

- Senior Leadership Board: co-chaired by Ms. Mami Mizutori (UNDRR) and Pr. Petteri Taalas (WMO SG), key UN organizations , IFRC and 3 private sectors representatives
- Pillar implementation: initial thoughts by lead agencies of each pillar, in consultation with the partner organizations.
  - Pillar 1, UNDRR (Ms. Loretta Hieber-Girardet)
  - Pillar 2, WMO (Mr. Cyrille Honoré)
  - Pillar 3, ITU (Ms. Vanessa Gray)
  - Pillar 4, IFRC (Ms. Tiziana Bonzon)
  - Pillar 5, UNDRR-WMO (Mr. Animesh Kumar, Ms. Assia Alexeiva) (pillar 5 is monitoring and evaluation)



# YR1 Priority activities

- Roll-out activities will yield quick wins and accelerate progress in an initial batch of 30 countries, mapping existing initiatives
- Implementation strategies agreed across the pillars, considering the global , regional and national level activities needed
- Address observation and forecasting capacity gaps for priority hazards, such as heatwaves, floods, TC, drought in the initial 30 countries
- Leverage innovation and solutions offered by the private sector
- Scale up work with IFRC and ITU on the Common Alerting Protocol
- Connect the WMO register of alerting authorities to Big Tech redistribution entities such as Google and Microsoft to scale official CAP warnings
- Goal: multi-hazard, all-media emergency alerting protects everyone everywhere as soon as possible



Thank you  
Merci

Additional information:  
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