#### **WMO OMM**



World Meteorological Organization Organisation météorologique mondiale Organización Meteorológica Mundial Всемирная метеорологическая организация النظمة العالمية للأرصاد الجوية 世界气象组织

#### Secrétariat

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26 June 2020

Our ref.:

WEATHER CLIMATE WATER TEMPS CLIMAT EAU

12680/2020/CSG/WMO-Reform

Annex:

1 (available in English only)

Dear Colleagues,

I would like to brief you on the substantial progress we have made in the implementation of our historic reform efforts and delivery of our core WMO business, despite the challenging times of the global COVID-19 pandemic. The important decisions that you made at the Eighteenth World Meteorological Congress (Cg-18), last June on the WMO strategic plan and budget for the financial period has guided our work in the secretariat and my staff have achieved several important goals during the last year including these last months.

A few weeks ago, together with the WMO President, Dr Adrian, I had the opportunity to speak to all of the Executive Council Members via video-conference in two dedicated sessions (presentation attached). The implementation of our new technical commissions SERCOM and INFCOM, and new constituent bodies such as the Policy Advisory Committee, the Science Advisory Panel and the Research Board are all operational. All of these bodies have managed to meet successfully by video-conference in the past few weeks and operate in an efficient manner. In line with new congress resolutions we are strengthening our public/private engagements including interaction with new service providers and a code of conduct for these interactions.

At WMO, we have been monitoring the status of the global observing system, the service capabilities of the NMHSs threatened by the pandemic. Some NMHSs have had difficulties in maintaining their observations and services. I have sent letters to the Ministers in charge of the NMHSs to emphasize the importance of their services for national safety. I have also been in touch with satellite operators to ensure continuation of their services. I am ready to interact with your governments if so requested.

The COVID-19 crisis has transformed the way we meet and make decisions over the last few months but has also introduced some innovations and focussed attention on key decisions. We will still require to plan ahead for the seventy-second Executive Council (EC-72) which will take place at the end of September by videoconference. As countries are slowly opening up, on the whole some are still heavily affected. This will impact on our possibilities to host physical meetings for some time to come.

During Cg-18 you had requested me to look into reforming the WMO administration and to make more efficiencies and improvements and in line with the resolutions, to strengthen our regional activities and ensure more substantive technical and professional support in the secretariat. Over the last months I have taken important and decisive steps to respond to that direction. Firstly, I have aligned our department structures to meet the needs of our new technical commissions and other constituent bodies, and opened director posts for applicants. All those posts have now been filled, and the new departments are fully operational.

To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO

cc: Hydrological Advisers to Permanent Representatives

A centralized services platform has been created to serve the needs of our departments and Members. I have taken steps to find savings among General Service expenditure and will be reallocating resources to recruit new professional staff. Some General Service staff have decided to leave WMO and some were not successful in applying for the service platform posts. However, support has been provided to those staff members in their future career building as requested. At the start of 2020, we significantly strengthened our legal support to staff by signing a comprehensive agreement with the United Nations Dispute and Appeals Tribunal which includes access to an ombudsperson and legal assistance to staff. New departments have been created and cross cutting coordinators in the areas of oceans and water/cryosphere have been appointed.

The reallocation of resources released in the streamlining of our administration will be used for strengthening our technical expertise and supporting our regional business. Since January 2020, six new directors are in place as the senior management team forming with the Executive Management a Board of Directors that meets on a weekly basis to guide the strategic direction of the secretariat. These directors have signed with me accountability compacts which will be reviewed on a six-monthly basis to ensure transparency and delivery. WMO has had a very positive outcome and unqualified opinion to the 2019 external auditors report with almost all of the recommendations fulfilled.

WMO is planning to host a major data conference in late November to improve the global observing system and to update our data policies and relevant WMO Resolutions. Over the coming months we will be preparing for our Extraordinary Congress in 2021 with the themes of WMO Reform, data-related decisions and water. We are currently working on building a high-level water and climate coalition involving key United Nations (UN) agencies and groups of countries to accelerate action on the Sustainable Development Goal (SDG) 6: Clean Water and Sanitation. We have also strengthened our development partnership activities by signing an alliance for hydromet development with several important UN and financing partners such as the World Bank, Green Climate Fund and development banks. We are also working on a sustainable financing instrument for identifying and supporting gaps in our hydromet and observations systems in developing countries through the Systematic Observations Financing Facility (SOFF) and Country Support Initiative (CSI).

Our flagship Climate Reports are gaining further international prominence with direct advice to the United Nations Secretary-General in the Core Climate group and at the UN Climate Change conference meetings to achieve global visibility through the international media.

Finally, I would like to emphasize that the post COVID-19 financial crisis has put a strain on resources from all countries as priorities are changing. This could have an impact on the speed of receiving assessed contributions. It is critically important to ensure this flow of funds in order that the secretariat can efficiently and effectively carry out its mandate and serve Members in the best way and I call on you to ensure that your governments maintain these commitments.

I look forward to continuing our important forward trajectory and implementing our historic reform efforts for realizing a WMO for the twenty-first century and I thank you for your continued confidence and support.

Yours faithfully

Prof. Petteri Taalas Secretary-General Prof. Petteri Taalas Secretary-General WMO

- Impact of Covid-19: global & WMO perspective
- Progress of constituent body & secretariat reforms
- Secretariat highlights
- Status of climate
- 2020 meeting plan



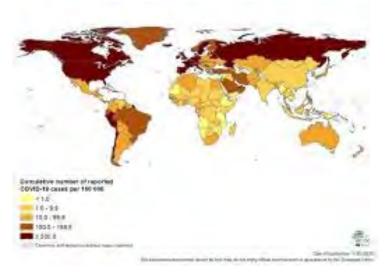
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World Meteorological Organization
Organisation météorologique mondiale

## Covid-19/World

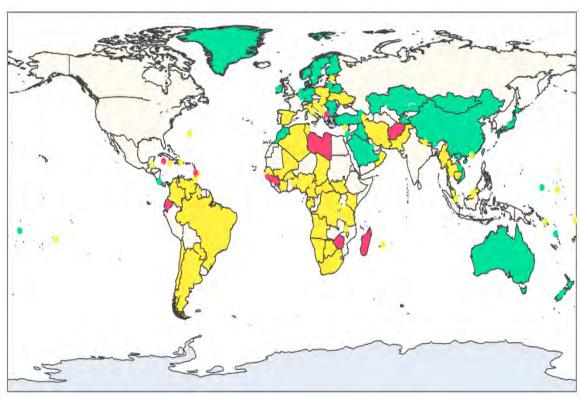
- As recession of the 30's, but now truly global;
- Global economy fragile, future unknown;
- In 2020 -3 % of global GDP, 2021 + 5 % (IMF);
- Optimistic scenario: 2-3 y recession, vaccine in one year, no major new Covid-19 waves, recovery of strong economies helps the weaker ones;
- Pessimistic scenario: 5-7 y recession, no vaccine soon, new Covid-19 waves, severe problems in developing world & weak economies: major increase of extreme poverty & hunger;
- Wide impacts already: economy, trade, consumption, air, sea & road transportation, tourism, emissions, employment, food security, industry, education etc;
- Large global powers not aligned: UN multilateral system challenged;
- Public recovery investments partly to climate friendly businesses.





#### **Effects of Covid-19 pandemic on NMHSs**

Situation as of May, 15<sup>th,</sup> 2020



#### Reported impacts include:

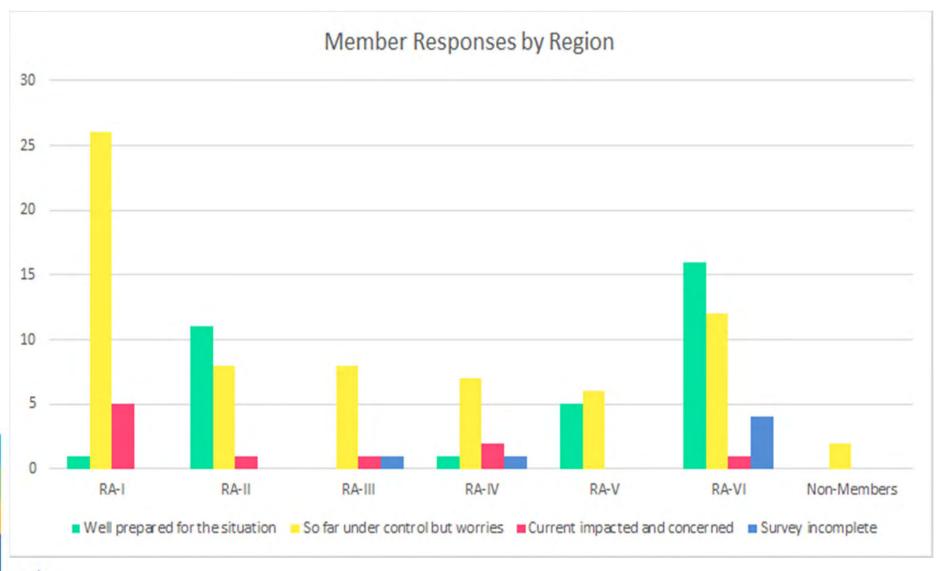
- Staff working conditions, health and well being;
- Observation network operations;
- Challenges with ICT, data processing;
- Forecasting and service delivery;
- Financial resources;
- Teleworking arrangements implemented by 92 services.

136 responses were received from 117 Members and 2 non Members.

83 services reaffirmed their commitment to support neighbouring countries.

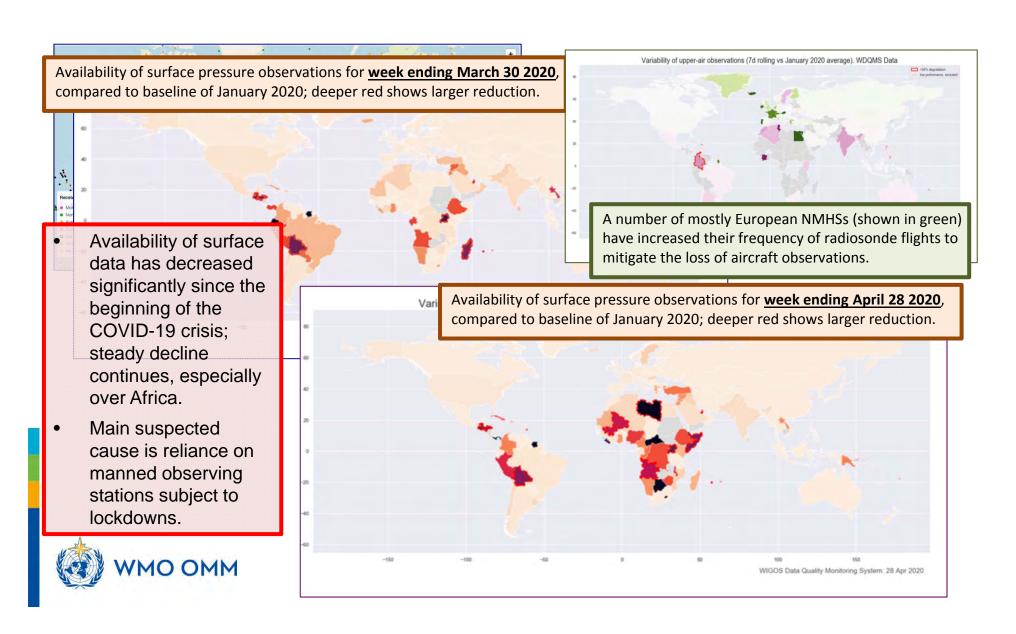


## Impact of COVID-19 by WMO Regions

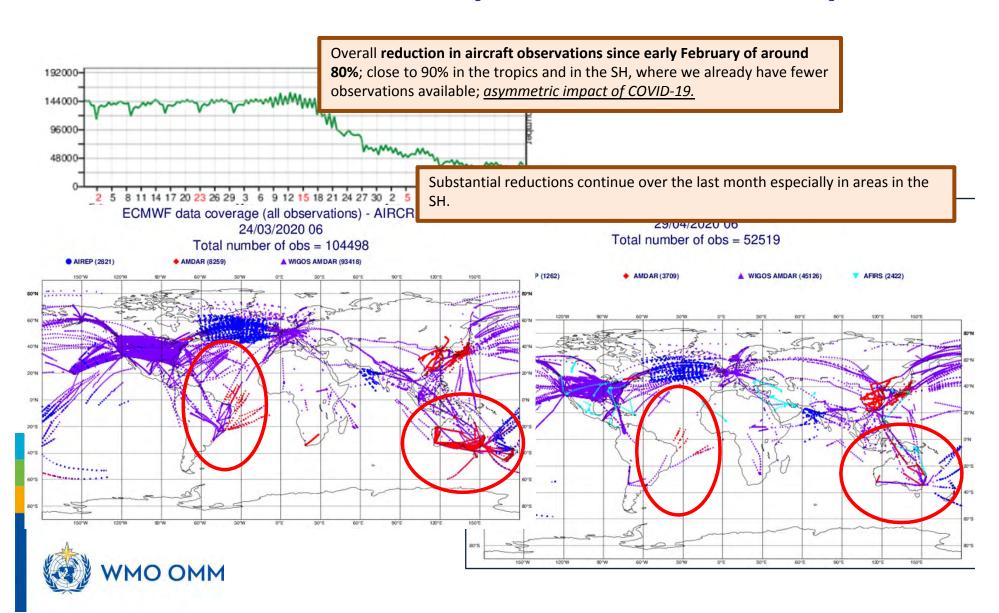




# Significant reductions in the availability of surface observations, especially in developing countries

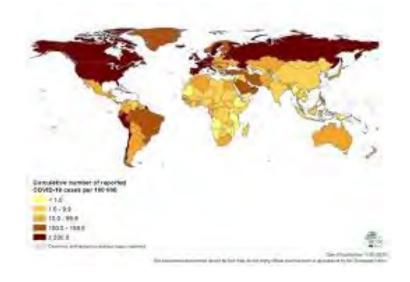


# Aircraft observations; drastic decline, especially in the Southern Hemisphere and in the tropics



## Covid-19/WMO

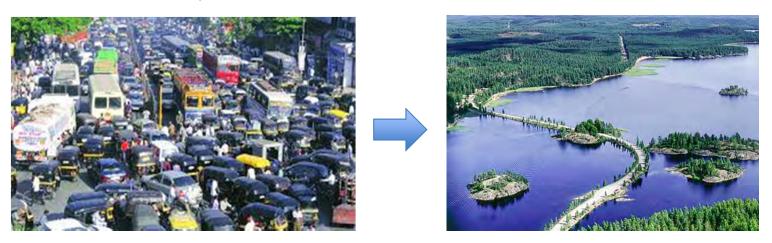
- Government economies threatened;
- Aviation income losses;
- Impacts on commercial services;
- Future of private sector?
- Impact on observing systems, soundings, satellite programs;
- Recovery investments as an opportunity? E.g. climate mitigation & adaptation;
- Videomeetings: possibility for more frequent meetings, savings of working time & costs, less jet lags... (WMO no more World Meeting Organization);
- Impacts on WMO strategy? EC, SAP?





#### **Historical WMO Reforms 2016-**

#### 1. Constituent body reform



#### 2. Secretariat alignment & reform





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Secrétariat de l'Organisation Météorologique Mondiale

Official, No. 127.

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#### REPORT

OF THE

## INTERNATIONAL METEOROLOGICAL CONFERENCE.

PARIS, 1896.

Published by Juthority of the Meteorological Council.



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#### APPENDIX.

#### APPENDIX I.

LIST OF THE GENTLEMEN INVITED TO TAKE PART IN THE CONFERENCE.

#### EUROPE.

Austria.-Helrath Dr. J. Hann, Director of the Central Office for Meteorological and Terrestrial Magnetism, Vienna.

Rear-Admiral Kalmar, Hydrographic Office, Pola.

Baurath P. Ballif, for Government of Bosnia and Herzegovina, Sarajevo.

Belgum.—M. Folie, Director of the Royal Observatory, Uccle, Brussels, Bulgaria.—Professor Watzoff, Central Meteorological Station, Sofia. DENMARK.-Dr. A. Paulsen, Director of the Meteorological Institute,

FINLAND.—Professor S. Lemström, Sec. Academy of Science, Helsingfors. Dr. E. Biese, Director of the Central Meteorological Institute,

FRANCE.—Professor E. Mascart, Director of the Central Meteorological Office, Paris.

M. E. Fron, Chief of the Telegraphic Branch of the Central

Meteorological Office, Paris. M. V. Fonrnié, Inspector-General of Bridges and Highways,

Paris. M. J. Jaubert, Chief of the Meteorological Service of the Municipal Observatory of Montsouris.

Dr. Fines, Director of the Meteorological and Magnetic Observatory, Perpignan.

M. B. Baillaud, Director of Observatory, Toulouse. M. A. Angot, Chief of the Services of Climatology, Instruments. and General Meteorology, Central Meteorological Office, Paris, M. Th. Moureaux, Chief of the Magnetic Service, Meteorological

and Magnetical Observatory, Parc Saint-Maur, Paris.
M. Leon Teisserene de Bort, General Secretary of the Meteoro-

logical Society of France, Paris.
M. H. Becquerd, President of the Meteorological Society of

France, Paris.

M. F. Tisserand, Director of the National Observatory, Paris.

M. Ch. André, Director of the Observatory, Lyons, Saint Génis

M. Ch. Gruey, Director of the Observatory, Besancon. M. Ch. Hurion, Directory of the Observatory, Puy de Dôme,

Clermont-Ferrand. M. Ch. Marchand, Director of the Observatory, Pic-du-Midi,

Bagnères de Bigerre.

M. G. Rayet, Director of the Observatory, Bordeaux.

M. Stephan, Director of the Observatory, Marseilles.

German Empire.—Professor Dr. W. von Bezold, Director of the Royal Meteorological Institute of Prussia, Berlin.

Geheimrath Dr. G. Neumayer, Director of the Deutsche Seewarte,

Professor Dr. Paul Schreiber, Director of the Royal Meteorological Institute of Saxony, Chemnitz.

#### 87 Invited, 43 Attended

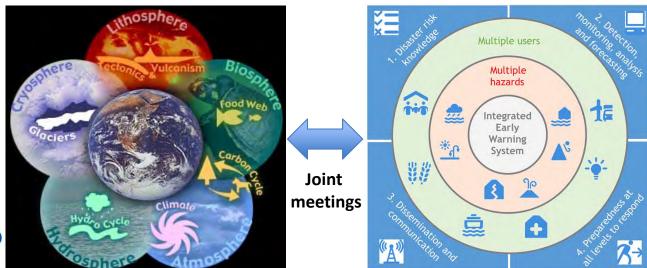
RA I	4	0
RA II	7	0
RA III	3	0
RA IV	10	4
RA V	7	2
RA VI	56	37



## From silos to holistic approach



Integration of weather, climate, water & ocean
Infrastructure Commission Services Commission





#### Infrastructure reform

- Infrastructure Commission formed
  - End-to-end value chain from measurement to products.
  - Cross-cutting domains weather, climate, oceans, hydrology, cryosphere.



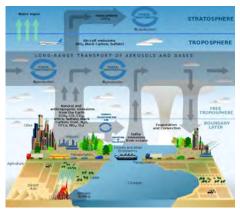
- Management Group membership agreed and first meeting already took place.
- Full membership of subsidiary structures to be agreed by end May.
- Infrastructure Department created 1 January to support the Commission
  - Consolidation of functions along the value chain and strong expertise across domains.

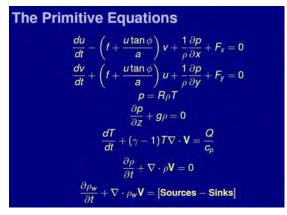


## **Engagement of science community**

#### 1. Scientific Advisory Panel

- Major strategic think-tank, world leading experts.
- How world is changing & how WMO should take changes into account in its strategic planning?

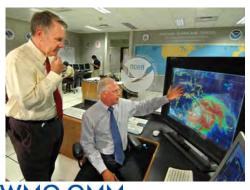






#### 2. Research Board

- Science to services.
- New innovative services & sharing of know-how.







## **Engagement of private sector**

#### 1. Observation & related IT infrastructures



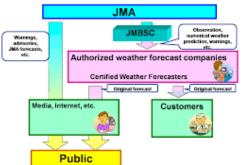




#### 2. Service provision



Flow of Weather Information





#### 3. Future of observing systems & data policies





## Public-private partnership

- National co-operation
- Code of conduct
- Public sector sustainability



# AMS 100 activities (Keynote of WMO Strategy, meeting with PR of USA, IBM Weather Company and HMEI President, etc. Jan. 2020)







#### Secretariat reform

- Alignment of the structures with the new constituent bodies
  - New departments established, and D posts announced for applicants in 2019, professional staff placed in the new departments;
  - Breaking of silos, holistic Earth System approach (weather-climate-water-oceans-cryosphere) in observations & services;
  - Support for multi-hazard early warning services (heat waves, drought, flooding, storms, tsunamis, earthquakes, forest fires etc.);
  - Enhanced coherence between Regional and Technical activities;
  - Engagement of private sector service & infrastructure providers in WMO;
  - Wider input of science community, support for national science-NMHSs cooperation & centres for excellence.

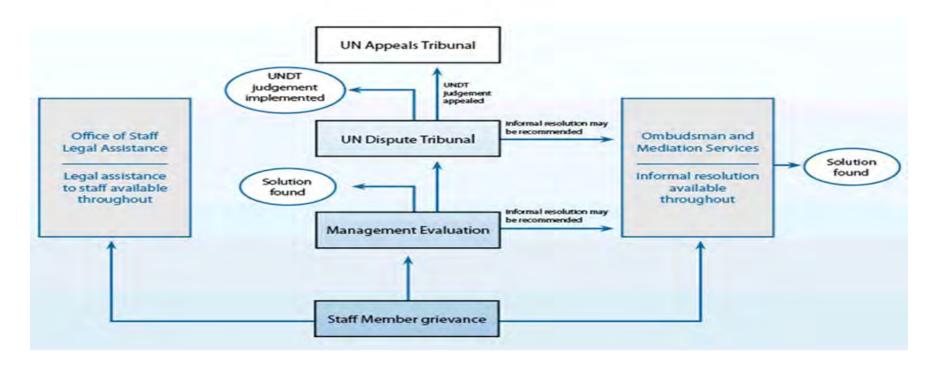


#### Secretariat reform

- Congress- 18 decision: savings in the Secretariat administrative work & additional resources for serving the Members
  - New large governance services department;
  - New P3 level administrative coordinators at each department;
  - Development of centralised & specialized administrative service platforms;
  - Utilization of modern means for streamlining of administrative work;
  - Review of all duties, 11 general staff terminations, 11 general staff opting out, reduction of ~6+ professional staff;
  - Reallocation of resources: strengthening of regional activities & technical expertise.



## **WMO-United Nations Agreements**



- Extension of the Jurisdiction of the UNDT and the UNAT to the WMO, signed on 20 January 2020;
- Provision of Services to the WMO by the Office of the United Nations Ombudsman and Mediation Services (UNOMS), signed on 27 January 2020;
- Provision of Services to the WMO by the United Nations Office of Staff Legal Assistance (OSLA), signed on 27 January 2020.



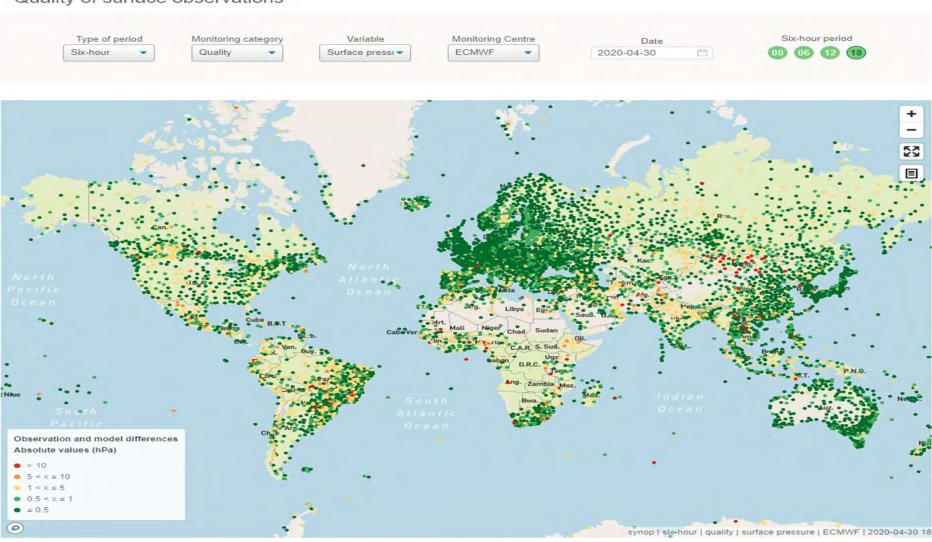
#### **Covid teleworking experiences**

- The work at the Secretariat has proceeded surprisingly well.
   Videoconferences have proven to be a powerful way to work.
   Savings of working time & travel costs.
- Several WMO meetings as highly successful videoconferences
  - Savings of working time & travel costs;
  - Even interpretation possible;
  - Allows more frequent meetings;
  - Also physical meetings needed.
- Secretariat work, only ~20 staff physically present
  - Weekly successful Board of Directors;
  - Regular departmental meetings;
  - Staff & management teleworking experiences;
  - Future use of office space: partial teleworking & common offices.
- A survey among staff & directors => new practices



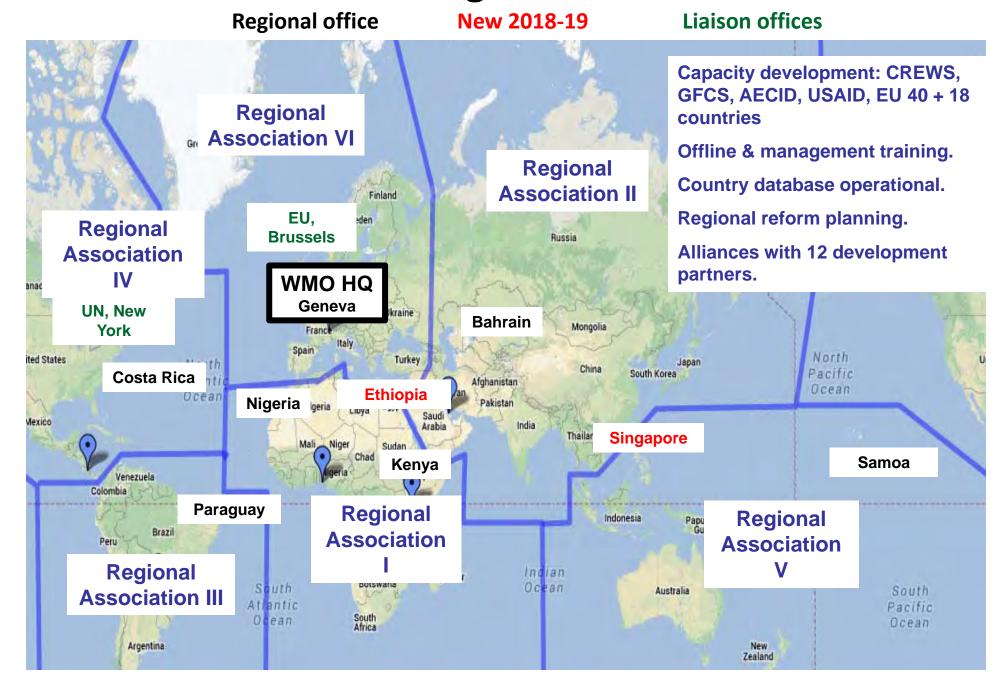
## Data Quality Monitoring System, WDQMS

Quality of surface observations





#### **WMO** Regional Structure



#### **Regional State of the Climate Reports**

- ✓ Africa planned to be finalized by the end of the month.
- ✓ Seeking opportunity to organize launch with the participation of the highest structures and key players in the continent (at the level of heads of African Union Commission, Economic Commission of Africa, African Development Bank, Regional Economic Communities and a few NHMSs (probably the President and Vice-President of RA I, WMO Vice-President or even EC Members).
- ✓ South America in preparation.
- ✓ Asia under discussion with UNESCAP and other partners.

#### **Education and Training**

- ✓ Training schedules are disrupted, and a number of group training activities have been cancelled, which is affecting potential fellows in the order of 60, so far in Africa, Asia and West Pacific.
- ✓ Looking with Regional Training Centers and collaborating partners on delivery distance learning. Looking into how to assists some institutions to deal with the situation.
- ✓ Capacity Development Panel has been constituted and will meet virtually prior to EC.



#### **Regional Association Business**

- Joint session of the Regional Association III (South America) and the Regional Association IV (North America, Central America and the Caribbean) planned for Oct-Nov subject to COVID-19 situation in the regions.
- RA I MG virtual meeting 25-27 May to consider RA structures in consideration of INFCOM and SERCOM Structures.
- Virtual Discussion Series for RA II Management Group:

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- Series I (23 Apr): Review of TCs membership and JS-TC-1 documents 5 PRs (UAE, Viet Nam, India, Iran and Japan), 2 DA (China and Rep. of Korea);
- Series II (Jun-tentative): Working Group structure and new concept of RA sessions.
- Establishment of Regional WIGOS Centres in RAs II and V:
  - ✓ RA II: Preparation of Progress Report on the Pilot Phase China and Japan are transferring the pilot mode phase I to phase II, towards the operational phase;
  - ✓ RA V: Preparation of proposals of candidate Members for a pilot phase (Australia, Fiji, Indonesia and Singapore).
- WMO joined the United Nations Asia-Pacific Regional Coordination Mechanism (UNAPRCM) as the 36th member of UN Agencies to enhance the inter-UN Agencies cooperation on Disaster Risk Reduction and Resilience in Asia-Pacific.
- Virtual RA V PICOF-6 (21 April): 50 participants from NMHSs in the PICs and int./regional organizations and institutions.

#### **Strengthening of Regional Business**

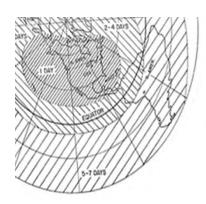
- Addition of P3 to RAM Office in Asunción and RAF Office in Abuja;
- CPDB Coordinator under recruitment to support Regional Offices engage Members to keep CPDB updated;
- P5 Technical Support Coordination under recruitment to support the Technical Integration Bridge between Regional Offices and the Technical Departments and work of RAs and TCs- in ELIOS for approval;
- Head of Office RAP Singapore advertised;
- New projects under development for CREWS and other mechanisms.

**HydroMet ALLIANCE**: Capacity **Gap Report** under development;

CSI: Country Hydromet Diagnostics tool on track;

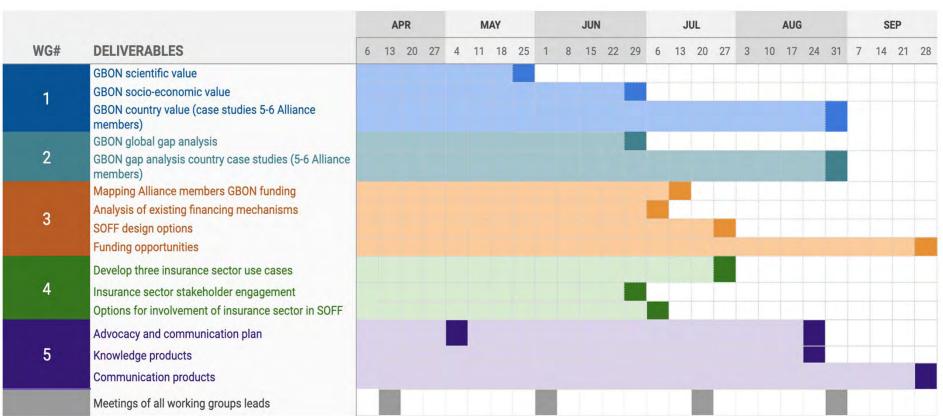
**SOFF** WGs established and commencing to meet virtually.





#### **Systematic Observations Funding Facility**

#### Overview of working groups' deliverables and timeline





## **SOFF Workshop & Achievements**

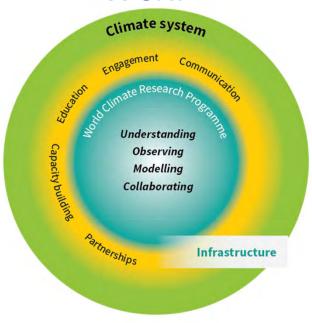
- A two-days workshop on Systematic Observation Financial Facility (SOFF) was organized Feb. 25-26 2020 at DWD HQ (Offenbach);
- GBON and SOFF recognized as imperative, strong WMO Members ownership: full participation of WMO President, PRA 1/3/6;
- Full support of Alliance members:
   SOFF creation one of the Alliance commitments; 11 members participated;
- Commitments beyond Alliance, in total 21 external partners joined;
- Commitment to move fast to create the SOFF: Agreement to establish multipartner working groups to develop the SOFF, steady progress;
- Clear demand for a scaled-up WMO role: Development and climate finance partners fully committed in using SOFF, Alliance and Country Support Initiative

MO OMM



#### **Science and Innovation**

#### **WCRP**



#### **GAW**



#### **WWRP**



**PROJECTS** 



**PROJECTS** 



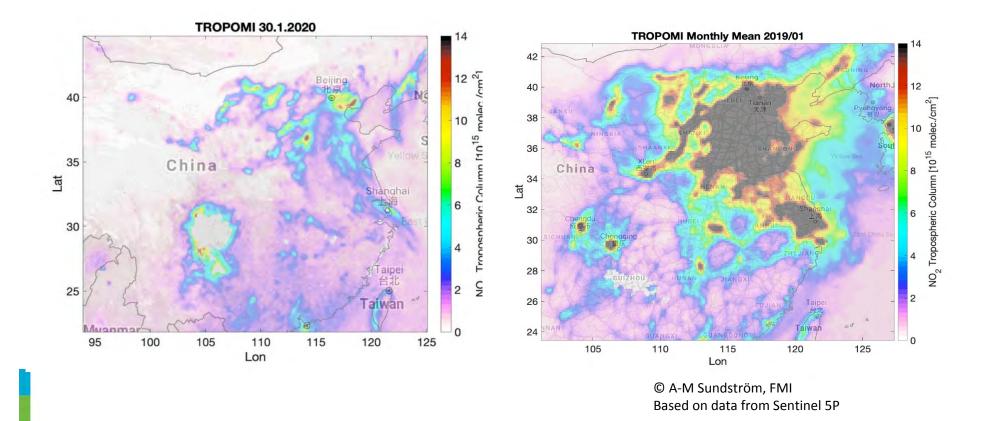
+50 REGIONAL **SCIENCE AND TECH TRANINGS** 





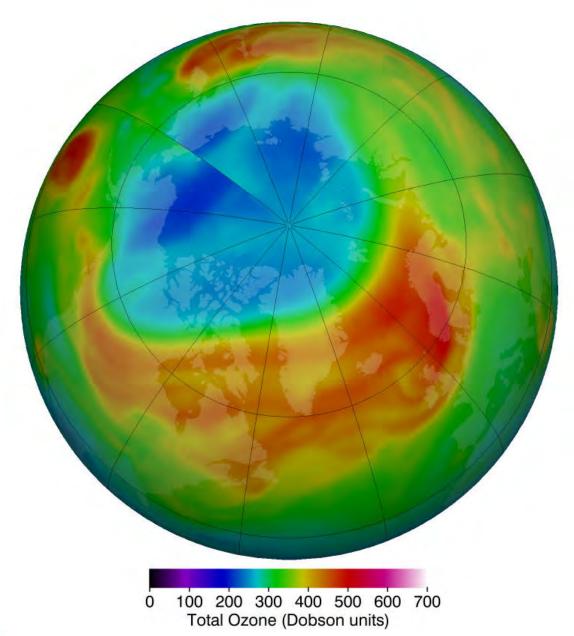
## Impact of corona outbreak on NO<sub>2</sub>

China air quality in 30.1.2020 compared to January mean 2019





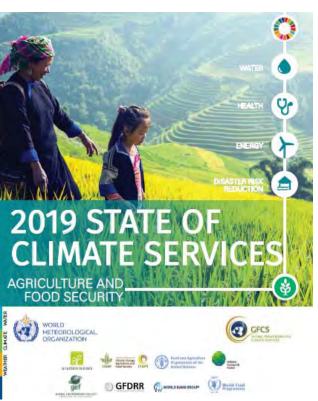
#### **Record Arctic ozone hole March 2020**



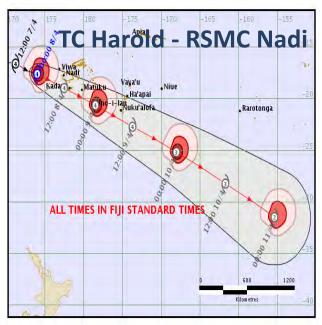


#### **Climate reports**



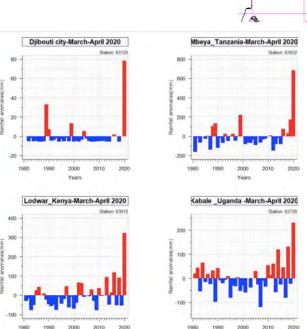


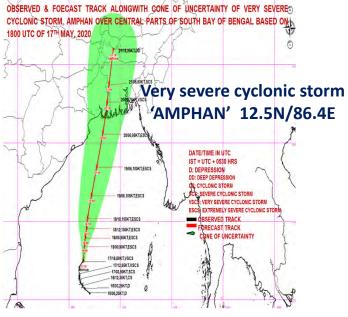
#### Extreme events besides the COVID-19 era













Flooding & locust crisis in E Africa

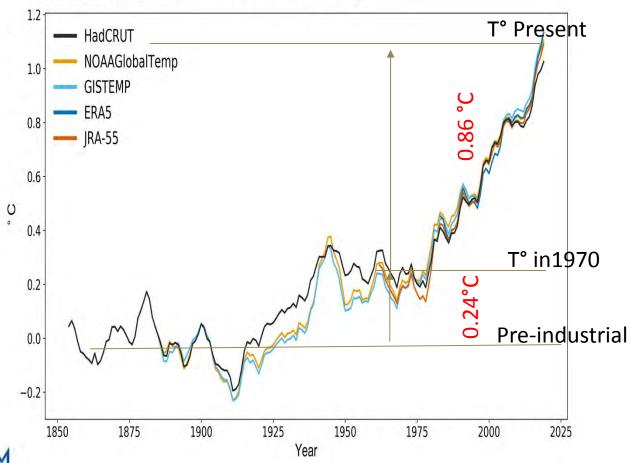


#### 2015-2019 warmest 5 year period +1.1°C above preindustrial level

Each 5 year period is warmer than the previous one

 **Met Office**

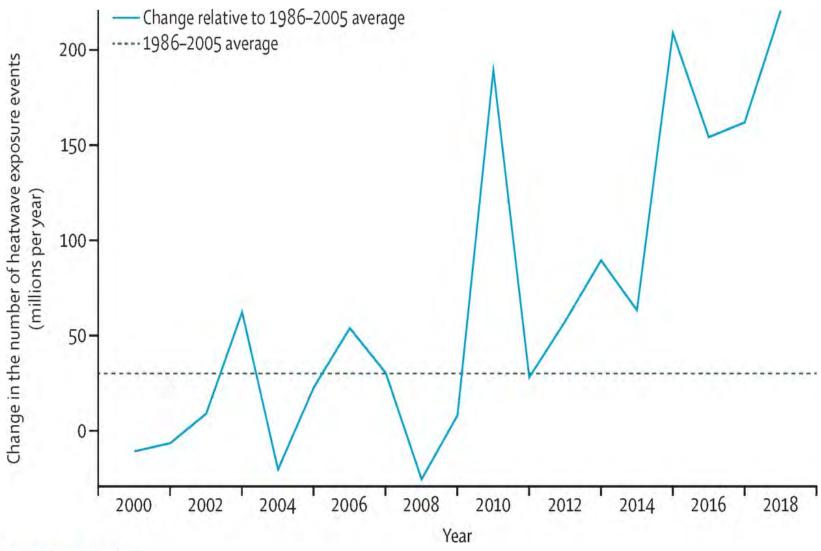
Global mean temperature difference from 1850-1900 (°C)





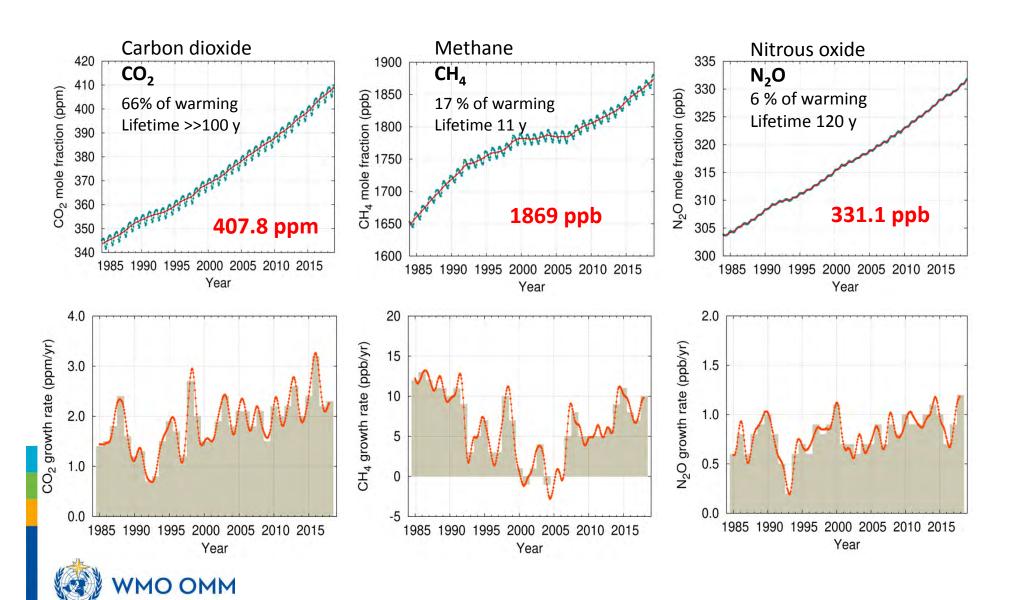
#### Heat wave exposure events have increased

Nearly 200 million above 1986-2005 average



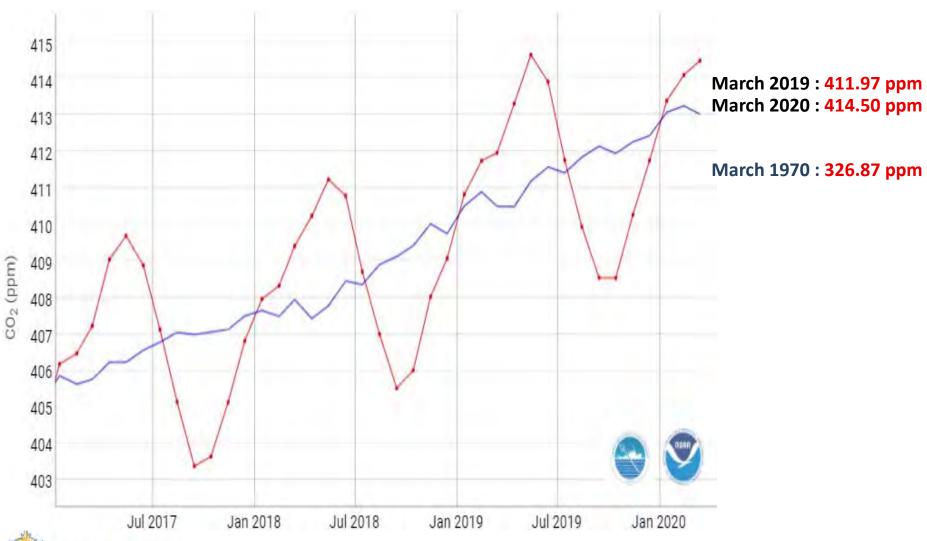


## Greenhouse gases: new records



## Real Time CO<sub>2</sub> Concentration Trends

Mauna Loa CO<sub>2</sub> concentrations continue to rise in 2020



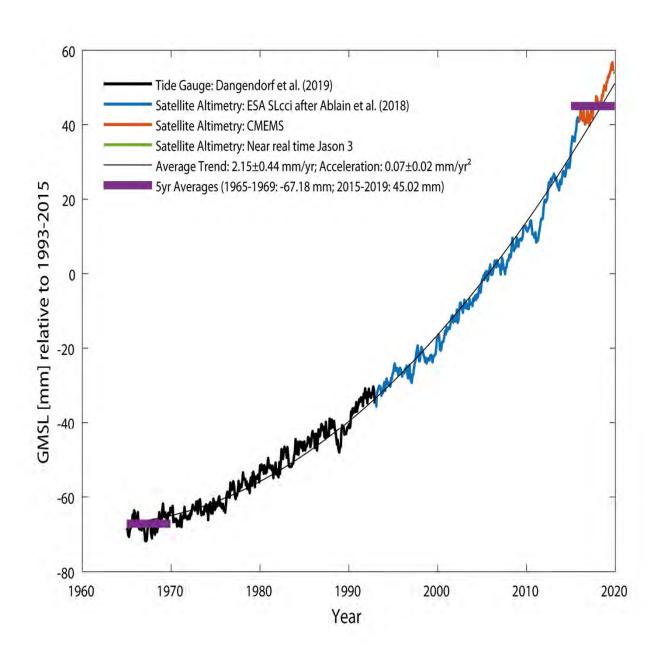


#### Sea level

Parabolic shape depicts an acceleration of sea-level rise since 1970's.

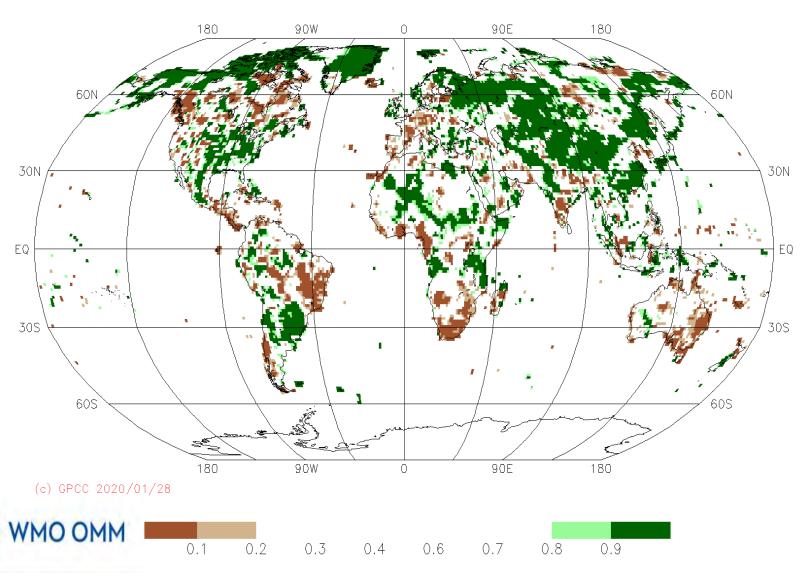
Sea levels have risen by 112 mm since the 1970's.



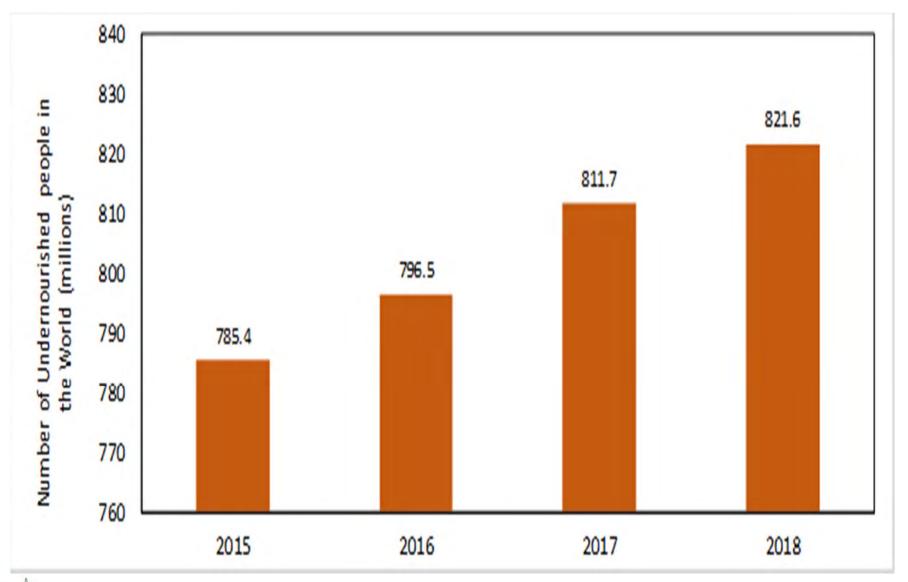


#### **Global precipitation extremes 2015-2019**

GPCC Precipitation Percentile January 2015 — December 2019 (reference period 1951—2010)

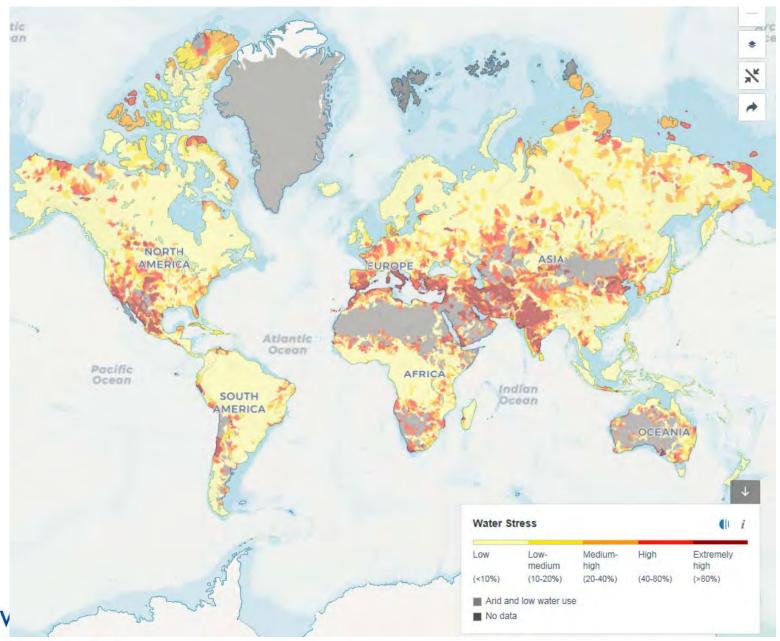


#### Rise in food insecurity & global hunger due to drought





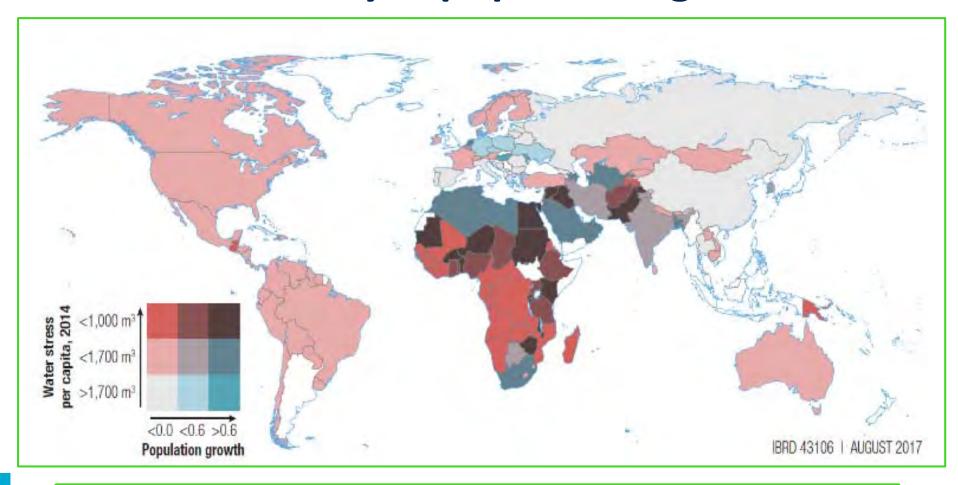
## Water stress is a global challenge





Source WRI

## Water availability & population growth 2050

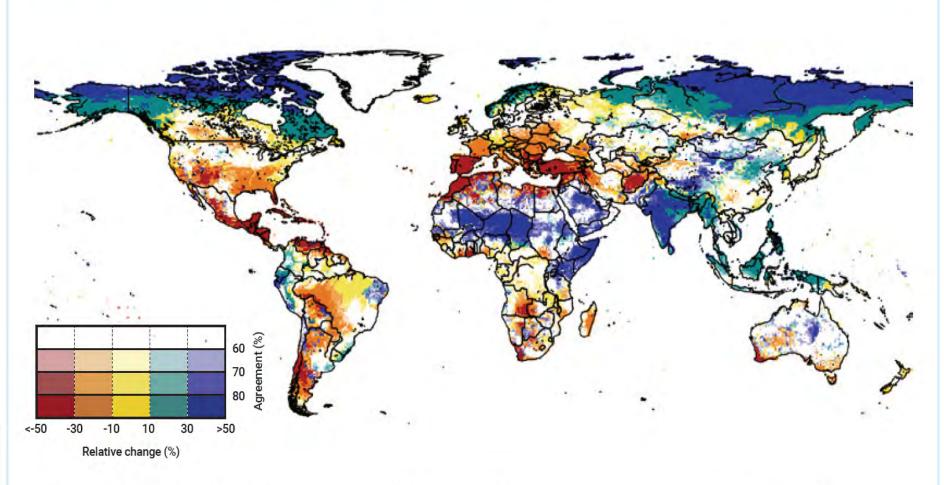


About 4 billion people, representing nearly two-thirds of the world population, experience severe water scarcity during at least one month of the year.



## Water availability by 2100, 3-5 C warming





Note: This figure depicts the relative change in annual discharge at 2°C temperature increase compared with present day, under RCP8.5.



## **UN Water-Climate accelerator /SDG 6**

- Boost the SDG 6/Water implementation;
- Enhance the hydrological observation & service capabilities of the UN Member countries for climate adaptation;
- Joint venture of at least WMO, FAO, WHO, WFP, UNEP, UNU, UNESCO, IFAD & UNICEF;
- Agreed by UN Water;
- Interest among development partners high, e.g. World Bank, GCF, Regional development banks & UNDP;
- Several supportive countries. German Mission plans to host a session this month, head of state level interest exists;
- Kick-off at WMO Congress 2021.



#### **WMO Meetings 2020**

- Technical Coordination Committee 27-29 April;
- Information session for Geneva missions 4 May;
- Policy Advisory Committee 11-12 May;
- Information sessions for the Executive Council 18-19 May;
- Scientific Advisory Panel 4-5 June;
- Audit Committee July (TBD);
- Executive Council late September & open consultative platform for private sector;
- Infrastructure Commission & Services Commission in November;
- Data Conference in November. Data policies, enhanced amount of observations, Resolution 42?;
- Regional Associations October-December.



شكرا لكم Thank you Gracias Merci Спасибо 谢谢



**WMO OMM** 

World Meteorological Organization Organisation météorologique mondiale