

Inaugural Session of the Third Pole Climate Forum and Meeting of the Third Pole RCC-Network Task Team  
4-6 June 2024, Lijiang, China

WEATHER CLIMATE WATER  
TEMPS CLIMAT EAU

# An Brief Introduction to the WMO RA II WG-S Activities



**WMO OMM**

**World Meteorological Organization**

**Organisation météorologique mondiale**

ZHOU Qingliang  
Chair, WMO RAI Working Group on Weather, Climate, Water and  
Related Environmental Services and Applications

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1. **Overview of RAII WG-S Working Structure and Operating Plan**
2. Major Outcomes from 10<sup>th</sup> RAII WG-S Meeting and SERCOM-3
3. Ongoing and Proposed Activities

# 1. RAII WG-S Working Structure and Operating Plan

## • WMO Reform – Next Phase :“An Enhanced Role For Regional Associations”

- Emphasized the role of the Regional Associations in implementing World Meteorological Congress resolutions, providing feedback to the Organization and contributing to the Strategic and Operating Plans.
- Emphasized the back-to-basics and action-oriented nature of the regional reform and its focus on engaging partners.

## • RAII-17(2021)approved the new RA II subsidiary bodies:

- Management Group (MG)
- Working Group on Observation, Infrastructure and Information Systems (WG Infrastructure)
- Working Group on Weather, Climate, Water and Related Environmental Services and Applications (WG Services)
- Coordination Panel on Hydrology and Water Resources (CP Hydrology)
- Regional Focal Point on Research (RFP/R)



# 1. RAII WG-S Working Structure and Operating Plan

## 1.1 Working Structure of the Working Group on Weather, Climate, Water and Related Environmental Services and Applications, Approved by the RA II-17 Virtual Session(Phase 1, 25 to 26 May 2021)

Titles	Name	Areas of responsibility	Role connected with SERCOM
<b>Chair</b>	Mr ZHOU Qingliang (CMA)	Overall coordination of WG Services. Activities related to DRR, marine, aviation, health services and applications.	Focal Point for SC-DRR, SC-MMO, SC-AVI and SG-HEA.
<b>Vice-chair</b>	Dr/Ms Kamaljit RAY (Ministry of Earth Sciences, India)	Activities relating to weather, hydrology, agriculture, urban services and applications.	Focal Point for SC-HYD, SC-AGR and SG-URB.
<b>Vice-chair</b>	Dr/Ms Saviz SEHAT KASHANI (IRIMO)	Activities relating to environment, energy services and applications	Focal Point for SG-ENE.
<b>Vice-chair</b>	Mr KYODA Masayuki (JMA) <b>Mr SATO Hirotaka (JMA)</b>	Activities relating to climate services and applications.	Focal Point for SC-CLI.

# 1. RAII WG-S Working Structure and Operating Plan(Cont'd)

1.2 Development of Services components of the RA II Operating (2021-2024) with regularly updating

- **9 Key Result Areas (Implementation Projects)** *(REQUEST BY CONGRESS/EC)*
  1. Strengthen Multi-Hazard Early Warning Services: GMAS-A
  2. Promote Impact-based Forecast and Warning Services
  3. Improve Agricultural Meteorological Services
  4. Improve Meteorological Services for Aviation
  5. Strengthen Marine and Coastal Services
  6. Improvement in Hydrological Services
  7. Promote Climate Services Implementation
  8. Promote Cooperation in Hydrology and Water Resources and Ensure Coordination among the Hydrology Substructures in RA II *(CPH)*
  9. Improve Capabilities on Water Resources Assessment *(CPH)*

# 1. RAII WG-S Working Structure and Operating Plan(Cont'd)

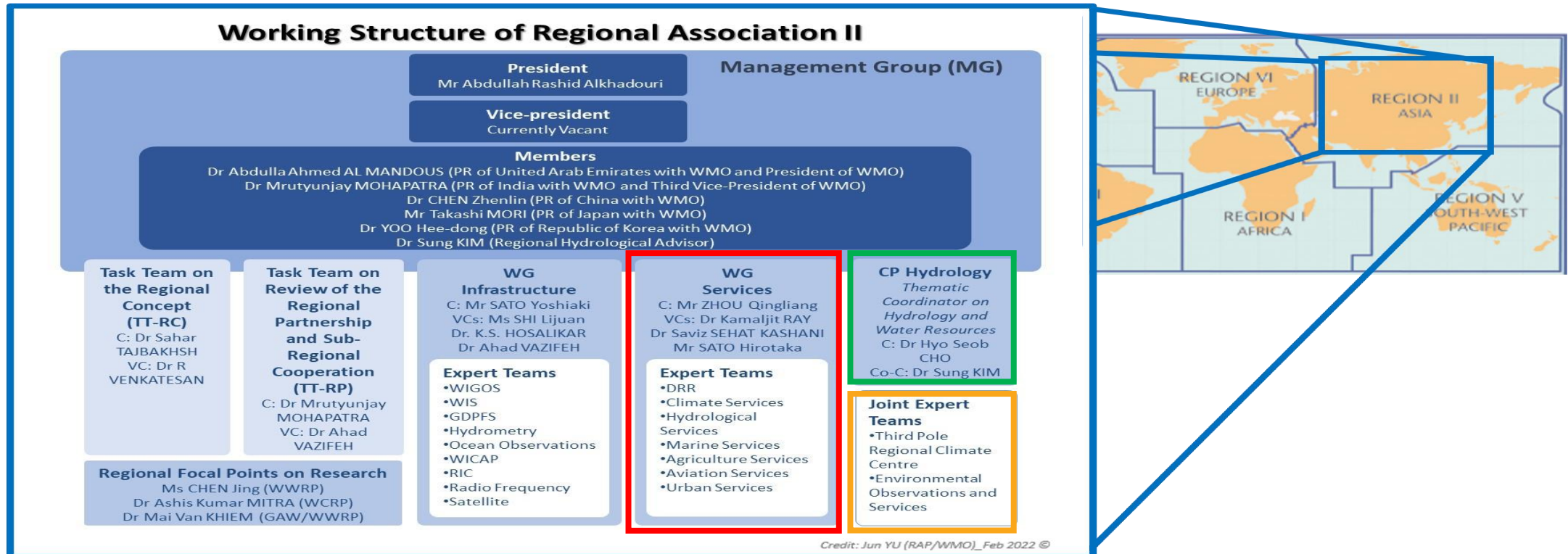
## 1.2 Development of services domain of the Operating Plan (2021-2024) with regularly updating

- **5 Demonstration Projects** (*CAPACITY DEVELOPMENT*)
  1. Promote WMO Cataloguing of Hazardous Events (WMO-CHE)
  2. Advance Integrated Urban Services
  3. Promote Polar and High-mountain Activities (*Joint*)
  4. Improve Observations and Services for Environmental Needs, Including Air Quality, and Sand and Dust Storms (*Joint*)
  5. Improve Drought Observations and Services (*Joint*)
- **2 Pilot Projects** (*INNOVATION AND TRY-OUTS*)
  1. Global Air Quality Forecasting Information System (GAFIS) Asia Pilot
  2. Public-Private Engagement for Smart Meteorological Services in Mega-Cities (*Joint*)



# 1. RAII WG-S Working Structure and Operating Plan(Cont'd)

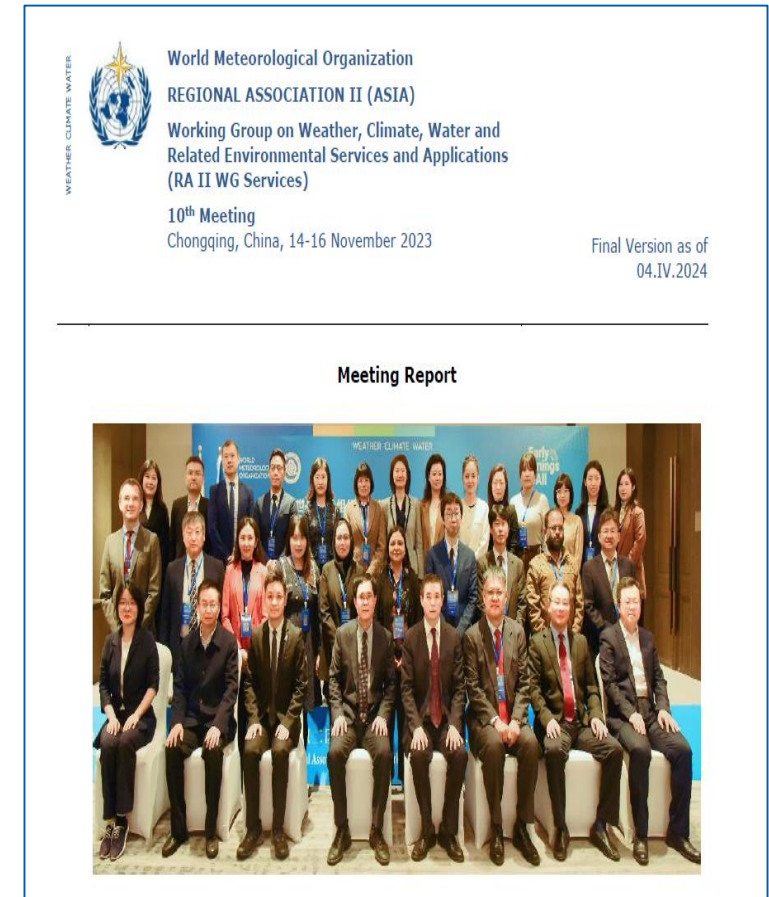
1.3 On 18 July 2022, RA II Sub-structure and Final Membership of ETs and CPH Approved by RA II Management Group by Correspondence



# 1. RAII WG-S Working Structure and Operating Plan(Cont'd)

## 1.4 Major achievements in the past 3 years

- **RAII WG-S 10th Meeting provided a platform for the RA II WG Services**
  1. To discuss the progress of activities and the update of the current RA II OP under the RA II Services domain, with a particular focus on achieving full early warning coverage in the region, aligned with the UN EW4All initiative.
  2. To prepare for RA II-18 and collect recommendations for the next RA II OP.
- **RAII WG-S 10th Meeting final report giving a highlights of the major achievements of the WG-S since 2021, could found at the link :**  
<https://community.wmo.int/en/meetings/tenth-meeting-ra-ii-working-group-services>





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3. Ongoing and Proposed Activities

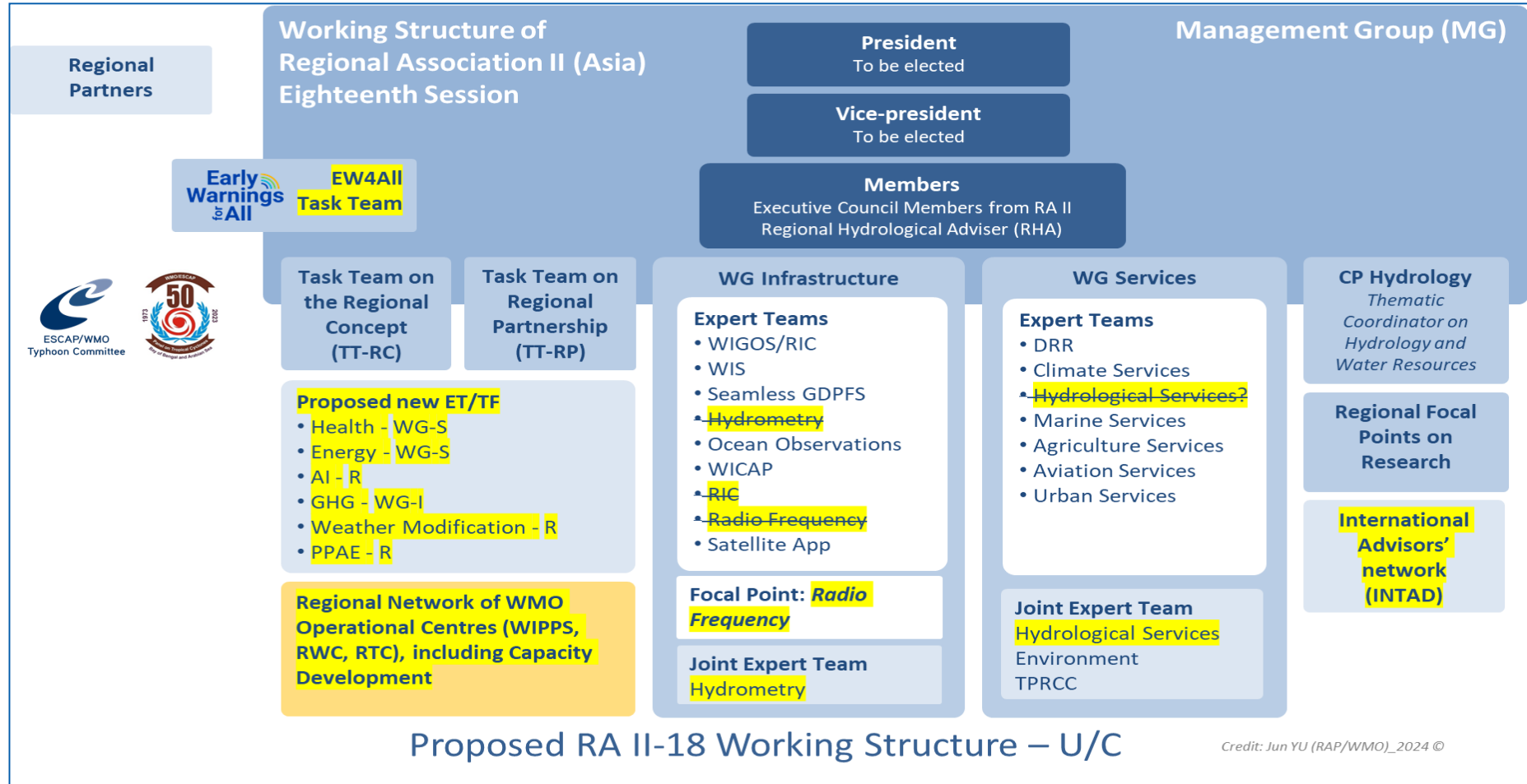
## 2. Major Outcomes from WG-S Meeting and SERCOM-3

### 2.1 Major Outcomes from 10th RAII WG-S Meeting

- **Recommendations/Proposals for the RA II Working Structure from the RA II WG Services meeting in November, namely the creation of**
  1. Task Teams on Public Private and Academia Engagement (TT PPAE) and Early Warnings for All (TT EW4All) – these could be composed of focal points from existing WGs/ETs/CPH or new experts;
  2. ETs or Task Forces (TFs) on Services for Energy and for the Health Sector, latter included in the ET-US;
  3. Regional Network of WMO Operational Centres (WIPPS, RWC, RTC), including Capacity Development;
  4. Joint Expert Team Hydrological Services and Hydrometry (JET-HS-HM, with a primary reporting line to the WG Services and secondary reporting line to CPH).
- **All updates to the RA II Operating Plan (OP) (Services Areas) before the RA II-18 Session :**
  1. EW4All should be fully integrated in this OP, with linkages to the SERCOM OP;
  2. We should also think about continuing, terminating or initiating new Implementation Projects, Demonstration Projects, and/or Pilot Projects as well as respective resources (could be from WMO extrabudgetary projects or in-kind contributions from Members)



## 2. Major Outcomes from WG-S Meeting and SERCOM-3(Cont'd)

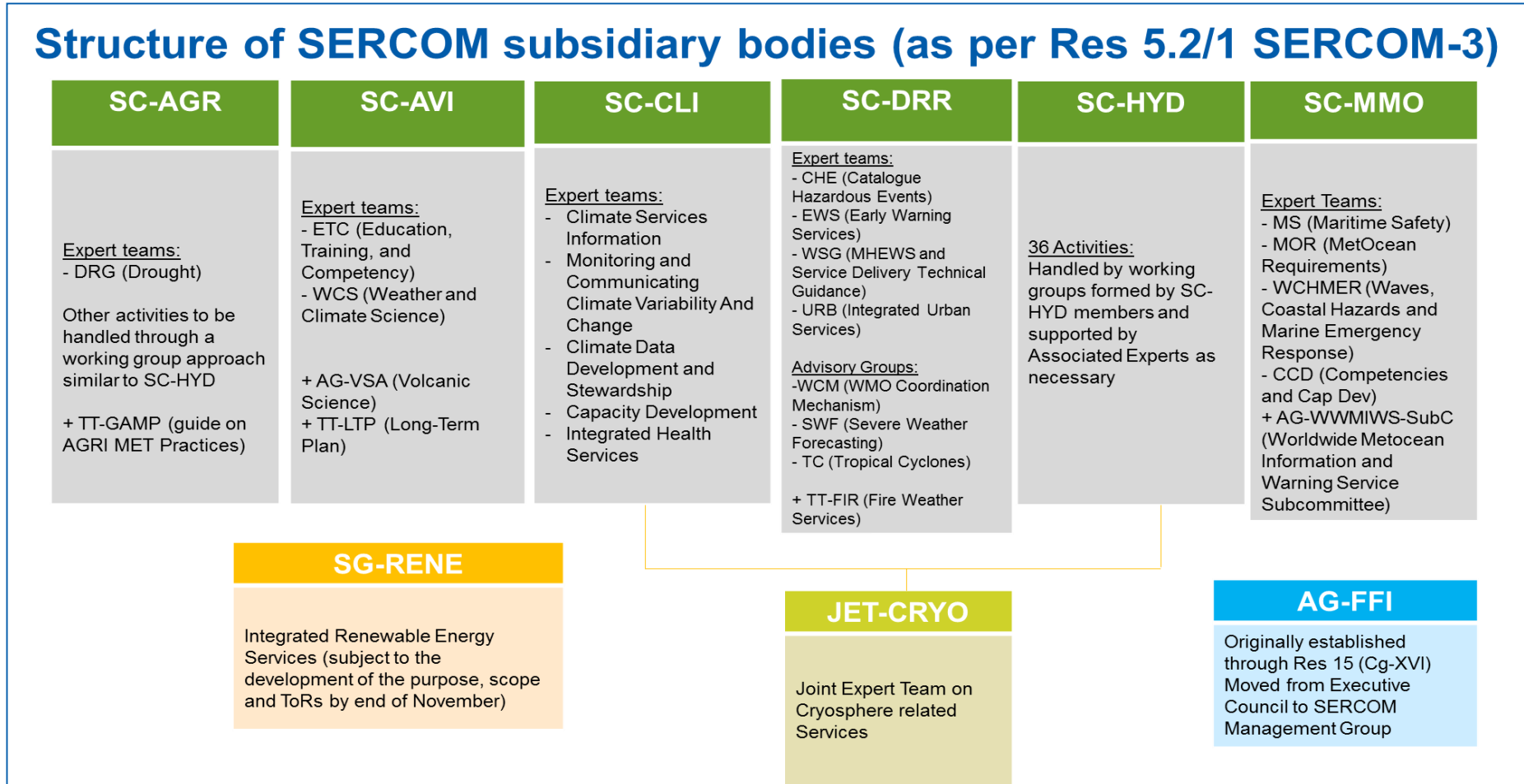


## 2. Major Outcomes from WG-S Meeting and SERCOM-3(Cont'd)

### 2.2 Major Outcomes from SERCOM-3

- A big milestone was the approval of SERCOM's new work programme for the next inter-sessional period (2024-2027). In addition, SERCOM recommended to the WMO Executive Council (EC), through the Technical Coordination Committee (TCC) to consider a new and expanded Weather, Climate, Hydrological, Marine and Related Environmental Services Programme, which would replace previous programmes for individual service and application areas. Such a programme will support the development and implementation of globally harmonized weather-, climate-, hydrological-, ocean- and environment-related services and applications that enable informed decision-making and the realisation of socioeconomic benefits by all user communities and society as a whole.
- Coordination and collaboration with other WMO entities, such as the Commission for Observation, Infrastructure and Information Systems (INFCOM), the Research Board, and the Regional Associations (RAs, with their own Working Groups/Committees on Services, and respective Expert Teams) was re-defined and strengthened.
- SERCOM approved the "SERCOM priority activities in support of the EW4All initiative", that will contribute to the "Roadmap for WMO's contributions to the EW4All initiative" (to be approved at EC-78), recognizing the need for an agile approach to implementation due to the initiative's complexity and short timelines. This Roadmap (previously called Implementation Plan) encompasses various activities under the SERCOM Work Programme, with ongoing consultation with Members and Regional Associations deemed crucial for successful implementation.

## 2. Major Outcomes from WG-S Meeting and SERCOM-3(Cont'd)



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3. **Ongoing and Proposed Activities**



# 3. Ongoing and Proposed Activities

## Proposed TT on EW4All



2023年3月15日周三 15:01

Dear Qingliang,

Your presentation was simply excellent, and by very far the best I ever saw in all the regional events I could observe so far !

This will be extremely useful for me in my role of pillar 2 implementation lead in the wider UN context , I very much look forward to our continued and close coordination in the next weeks and months .

Very grateful again for your efforts and support !

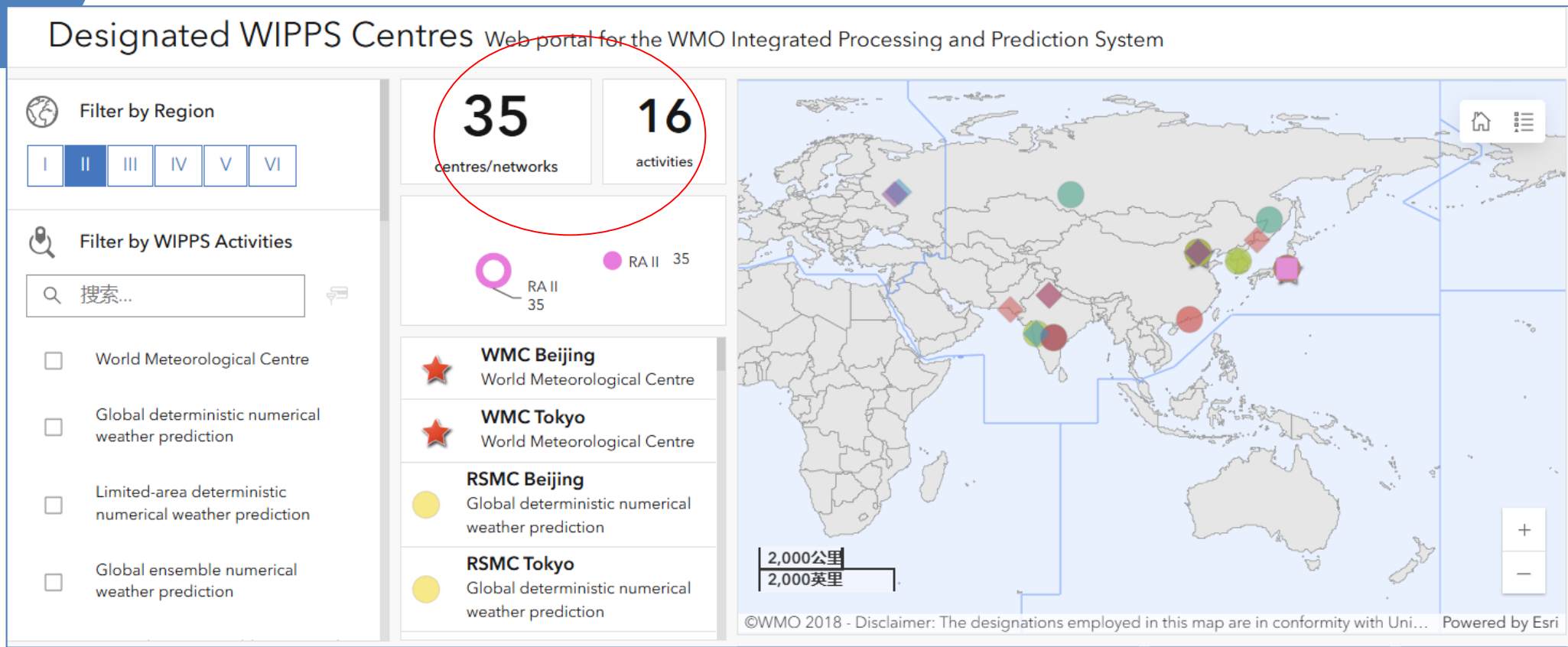
Cheers

Cyrille

### 2023 RAI RECO Meeting: Regional Initiatives for Implementation of EW4All in Asia - A Roadmap Approach

# Regional Initiatives for implementation of EWS for All in Asia

WMO  
Infrastructure



WMO OMM

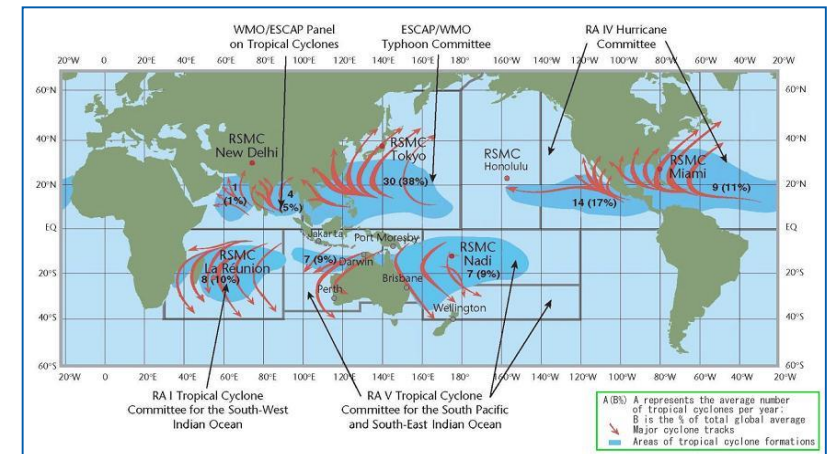
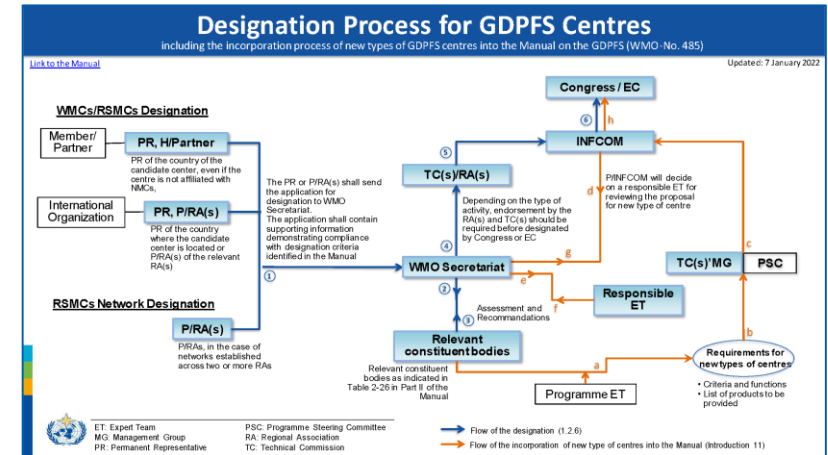
<https://wmo.maps.arcgis.com/apps/dashboards/7c3d45e5003a417988bad63e91ad8748>

# 3. Ongoing and Proposed Activities(Cont'd)

## 3.1 Jointly support RAI Members to apply for new WIPPS Regional Specialized Meteorological Centres

- IRMO is applying a new RCC
- IRMO and NCM of Saudi Arabia are both willing to host new RSMC-ASDF for Central Asia and West Asia
- JMA and CMA are jointly applying the WIPPS LC-TCFV
- Host Members of SWFP-SeA, CA, SA could apply RSMC for Regional severe weather forecasting
- Probably RAI Members need to host more RSMCs for Tropical cyclone forecasting, including marine-related hazards, and RSHC and TPRCC.....
- Jointly analyze requirements and encourage RSMCs in the region to offer more distinctive support products

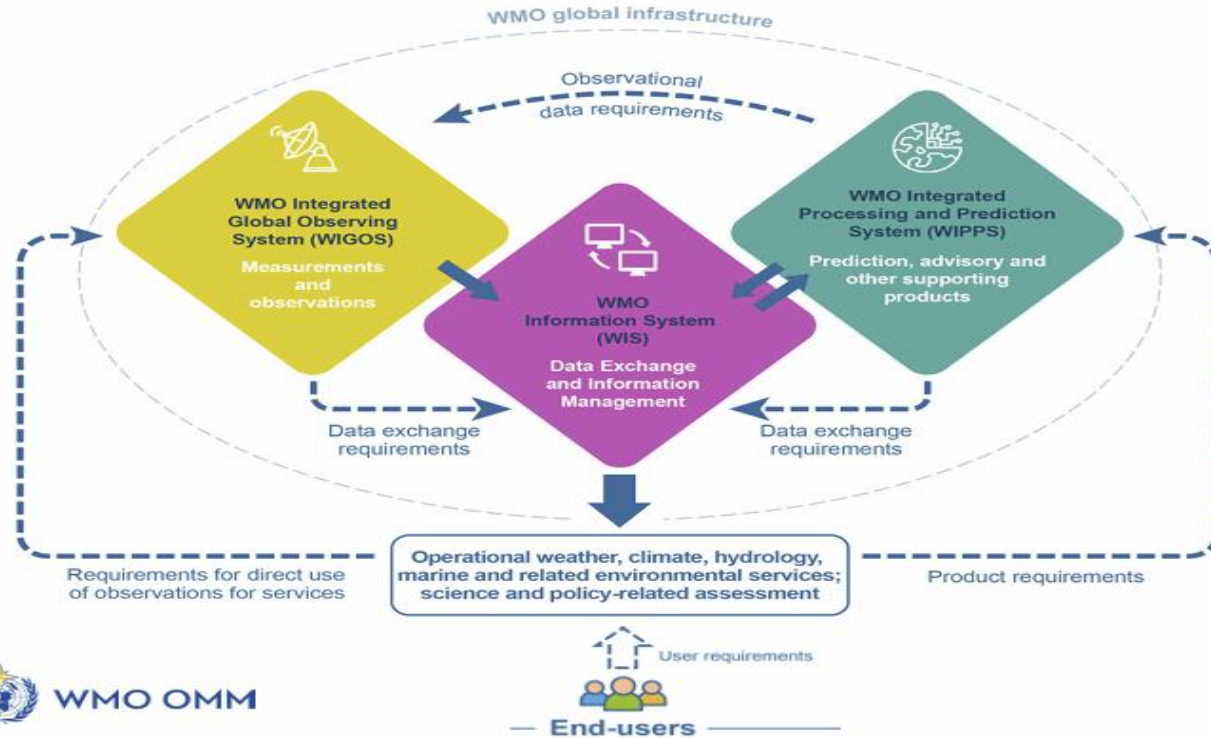
<https://wmo.maps.arcgis.com/apps/dashboards/7c3d45e5003a417988bad63e91ad8748>



# Regional Initiatives for implementation of EWS for All in Asia

WMO  
Infrastructure

## WMO Operational Infrastructure



- **WIPPS:** WMO Integrated processing and **P**rediction System
- **WIGOS:** WMO Integrated Global **O**bserving System
- **WIS:** WMO Information System (**D**ata **e**xchange)

Services Domain  
Systems??

Multi-Hazard Early Warning  
Systems (MHEWS)





## 3. Ongoing and Proposed Activities(Cont'd)

3.2 Supporting RAI Innovation of the establishment of COEs (Centers of Excellence) to make up for the absence of “RSMC” in the field of WMO services domain

- **CMA Shanghai Metrological Services is planning to host “WMO Centre of Excellence for Urban Multi-hazard Early Warnings ”**
- **NCM of UAE is going to host “WMO Centre of Excellence for Renewable Energy Services”**
- **Probably RAI may have a lot kind of this COEs, such as COE for Meteorological Satellite Application, for Health Services,.....**
- **HKO’s leading WMO Project WWIS, GMAS-A may be transformed into COE for PWS, GMAS-A**

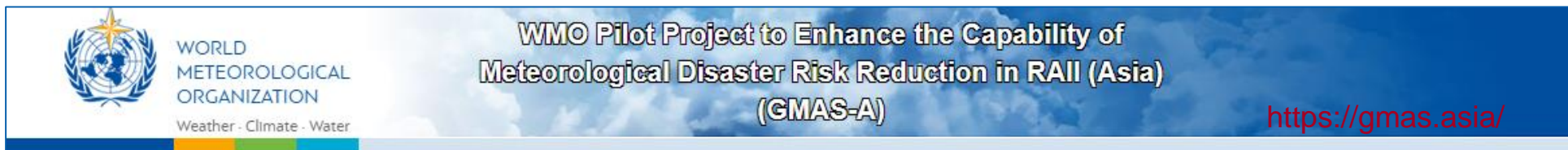


WORLD METEOROLOGICAL ORGANIZATION  
Weather · Climate · Water

World Weather Information Service  
Official Forecasts

English

<https://worldweather.wmo.int/en/home.html>



WORLD METEOROLOGICAL ORGANIZATION  
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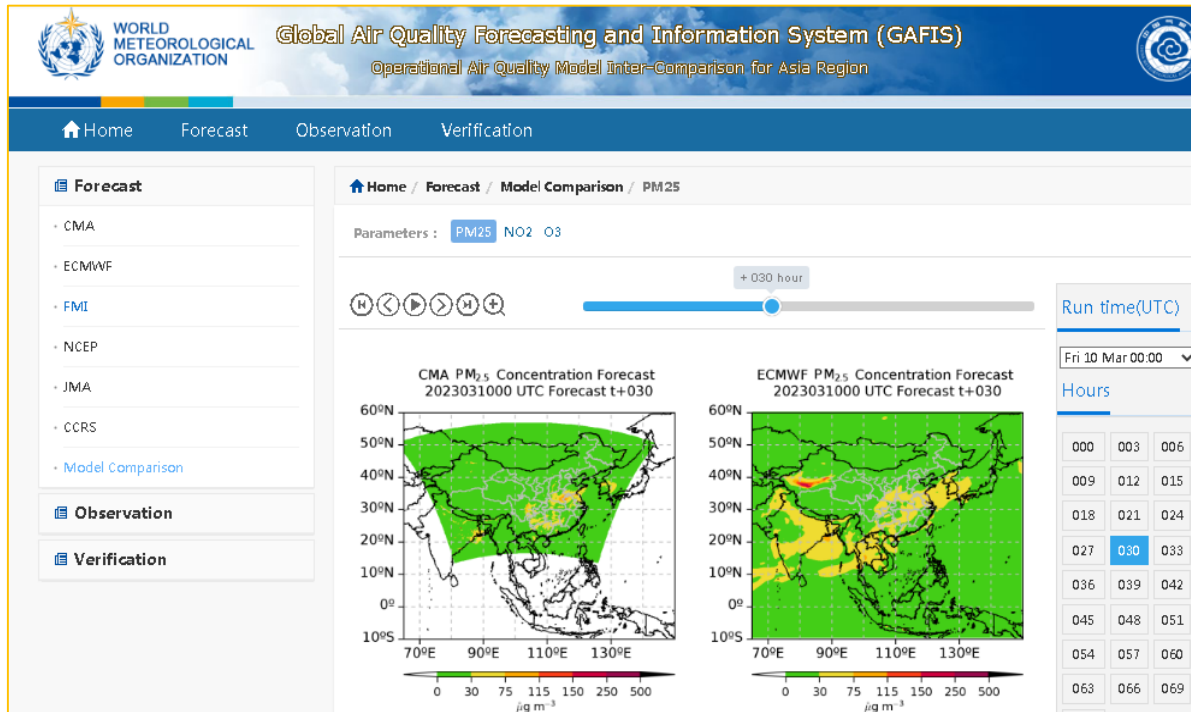
WMO Pilot Project to Enhance the Capability of  
Meteorological Disaster Risk Reduction in RAI (Asia)  
(GMAS-A)

<https://gmas.asia/>



# 3. Ongoing and Proposed Activities(Cont'd)

## 3.2 Active involvement in WMO research activities:



The screenshot shows a Microsoft Teams meeting interface. The meeting title is 'WMO AI pilot project brainstorming discussion'. The interface includes a top navigation bar with icons for '获取控制权', '弹出', '聊天', '人员', '举手', '回应', '视图', '更多', '摄像头', '麦克风', '共享', and '离开'. Below the navigation bar, there are video thumbnails for participants and a list of participants: 'Yuheng HE...' and '参与者'. The main content area displays a presentation slide with the WMO logo and the following text:

**Motivation**  
AI nowcasting pilot project

- Support the **Early Warning for all Initiative**
- Research to Operation (R2O)
- Support and strengthen the **real seamless GDPFS with AI**
- **Narrow the AI capacity gap** between WMO Members
- Promote **Public-Private Engagement (PPE)** on AI
- Link **AI activities** across WMO departments and contribute to WMO Strategic Plan

At the bottom left of the slide, the name 'Kanghui ZHOU (外部)' is visible.



# 3. Ongoing and Proposed Activities(Cont'd)

3.3 Consider a cross-cutting TT or ICP on Capacity Development (could be comprised of a focal point from each ET, RTC), in coordination with the WMO Global Campus/ Education and Training (ETR) Programme and WMO Capacity Development Panel (CDP) and Strategy:



# 3. Ongoing and Proposed Activities(Cont'd)


## 3.4 Fostering partnership

- Working with UN agencies
- Identification of major partners in the region
- .....




**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?

Thank you

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Спасибо

谢谢

Merci



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