AOMSUC-15 FYSUC-2025

FIFTEENTH ASIA-OCEANIA METEOROLOGICAL SATELLITE USERS' CONFERENCE

THE JOINT 2025 FENGYUN SATELLITE USER CONFERENCE

Satellite data and products in support of EW4ALL in Asia-Pacific region

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- Pillar 2: Country Hydromet Diagnostics
- Pillar 2: Rapid assessments
- Survey Results in RA-II & RA-V: Analysis
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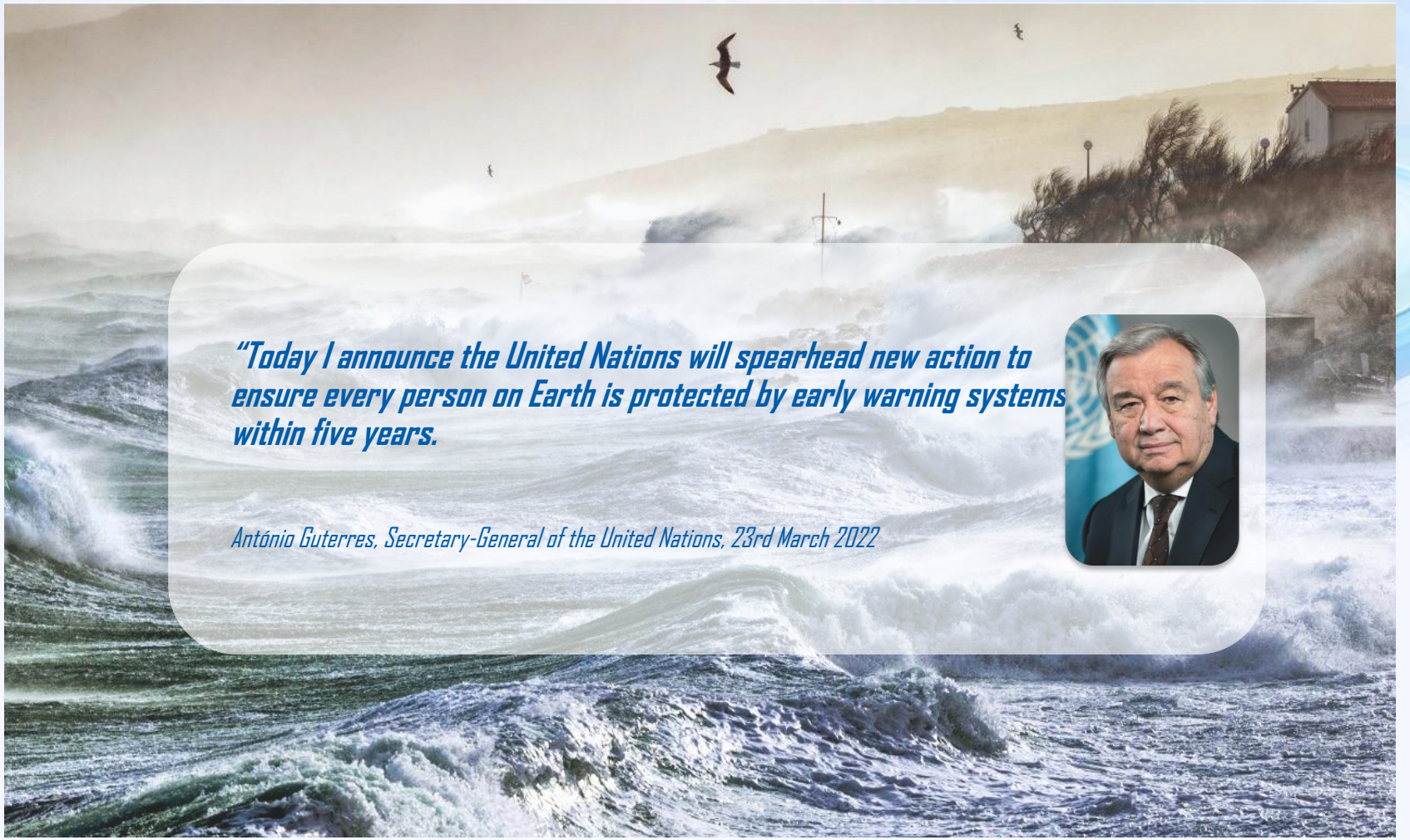
Early Warnings for All



Initiative is built on four pillars

UNDRR

Disaster risk knowledge and management (led by UNDRR)
Ensuring all countries have access to reliable, understandable and relevant risk information, science and expertise

WMO

Detection, observation, monitoring, analysis, forecasting (led by WMO)
Ensuring all countries have robust forecast and monitoring systems, enabling policies to support optimization and sustainability of hazard monitoring and early warning systems

ITU

Warning dissemination and communication (led by ITU)
Using a people-centered approach to ensure that early warnings are effectively and timely disseminated to reach everyone, especially those most at risk

IFRC

Preparedness and response capabilities (led by IFRC)
Ensuring local governments, communities and individuals at risk have the knowledge and means to take pre-emptive early actions to prepare for and respond to incoming disasters upon receiving warnings

Pillar 2 EW4ALL

- 🔍**Two Tools:** Capacity assessments are conducted using two standardized and interlinked tools - the **Country Hydromet Diagnostics (CHD)** and the **Pillar 2 Rapid Assessments (RA).** Together, they form a harmonized framework that ensures comparability, consistency, and high data quality.

Country Hydromet Diagnostics (CHDs)

- 🌐**Country Hydromet Diagnostics (CHDs):** CHDs are **comprehensive, peer-to-peer assessments** that offer a **big-picture evaluation** of a National Meteorological and Hydrological Service's (NMHS) capacity and operating environment. They assess the NMHS's contribution to weather, climate, hydrological, and environmental services and warnings.

- Key characteristics:

- Cover **10 diagnostic elements** across the Hydromet value chain.
- Use a **maturity scale from 1 to 5** to indicate current capabilities.
- Assessments are **fully validated**, based on **self-reported data verified during in-country visits**.
- Conducted with support from **SOFF (Systematic Observations Financing Facility)** and a **global pool of expert peer advisers** as part of the SOFF Readiness Phase.

- 👉Learn more: CHDs – Analytics for Impact

Asia

Bangladesh

PEER REVIEWERS:
Norwegian Meteorological Institute & China Meteorological Administration

Bhutan

PEER REVIEWER:
Finnish Meteorological Institute

Cambodia

PEER REVIEWER:
Met Office, United Kingdom of Great Britain and Northern Ireland

Lao PDR

PEER REVIEWERS:
China Meteorological Administration & GeoSphere Austria

Maldives

PEER REVIEWERS:
Finnish Meteorological Institute & BMKG, Indonesia

Nepal

PEER REVIEWER:
Finnish Meteorological Institute

Country Hydromet Diagnostics (CHDs)

👉Learn more: CHDs – Analytics for Impact

- **6 countries in RA-II**: Bangladesh, Bhutan, Cambodia, Lao PDR, Maldives, Nepal
- **10 countries in RA-V**: Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Palau, PNG, Samoa, Solomon Islands, Tomor Leste

Pillar 2 Rapid Assessments (RAs)

- ⚡ **Pillar 2 Rapid Assessments (RAs):** RAs are **targeted evaluations** focusing on a country's **hazard monitoring and forecasting capacity**. While lighter in scope, they maintain methodological alignment with the CHDs.

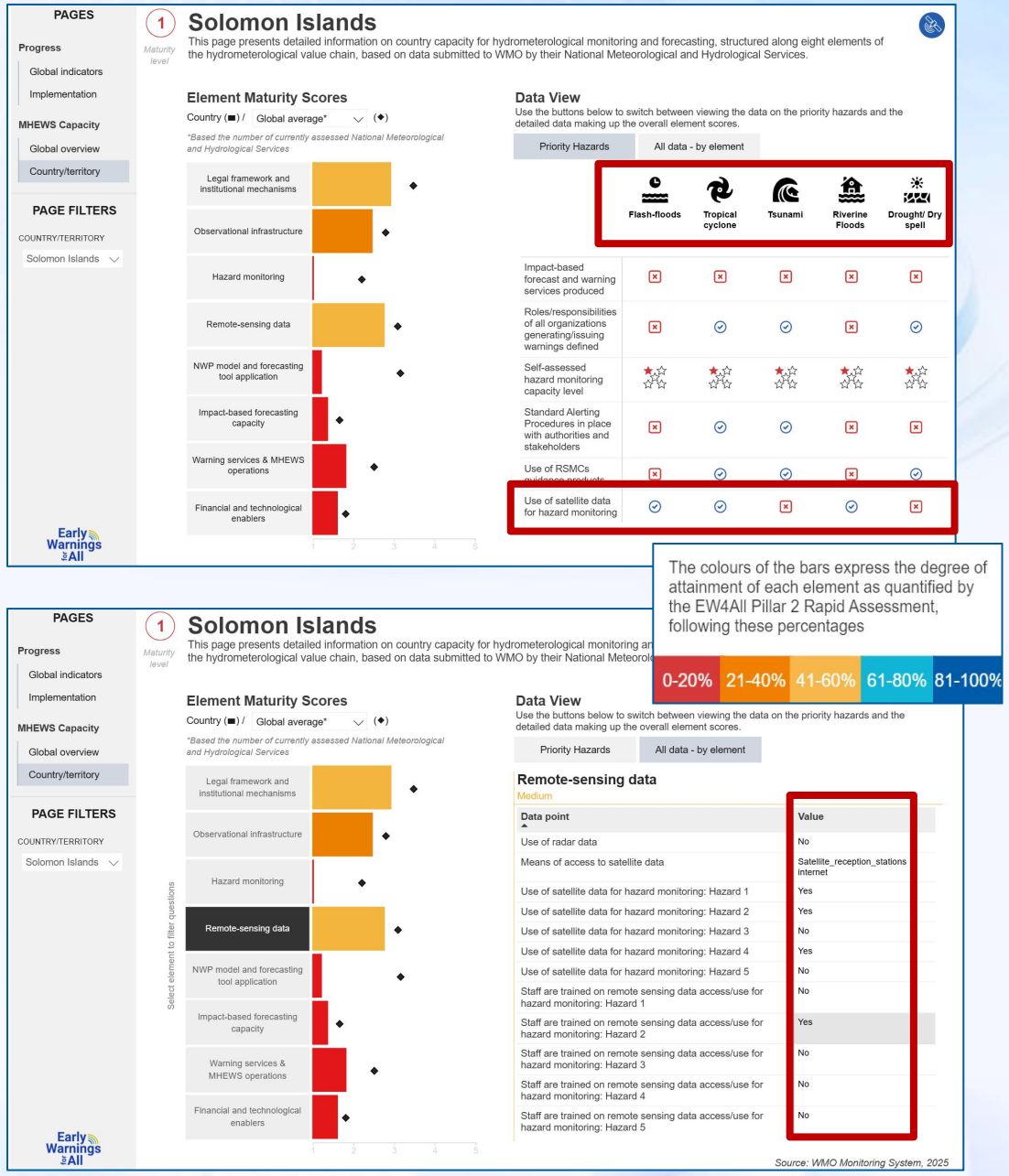
- Key characteristics:

- Cover **8 elements**, directly aligned with CHD indicators.
- Also use a **maturity scale from 1 to 5**.
- Conducted through **structured interviews** led by WMO.
- **Gradually validated** through subsequent CHDs.

👉Explore the Early Warnings for All Dashbord: Early Warnings for All Dashboard

Rapid Assessments in RA-II & RA-V

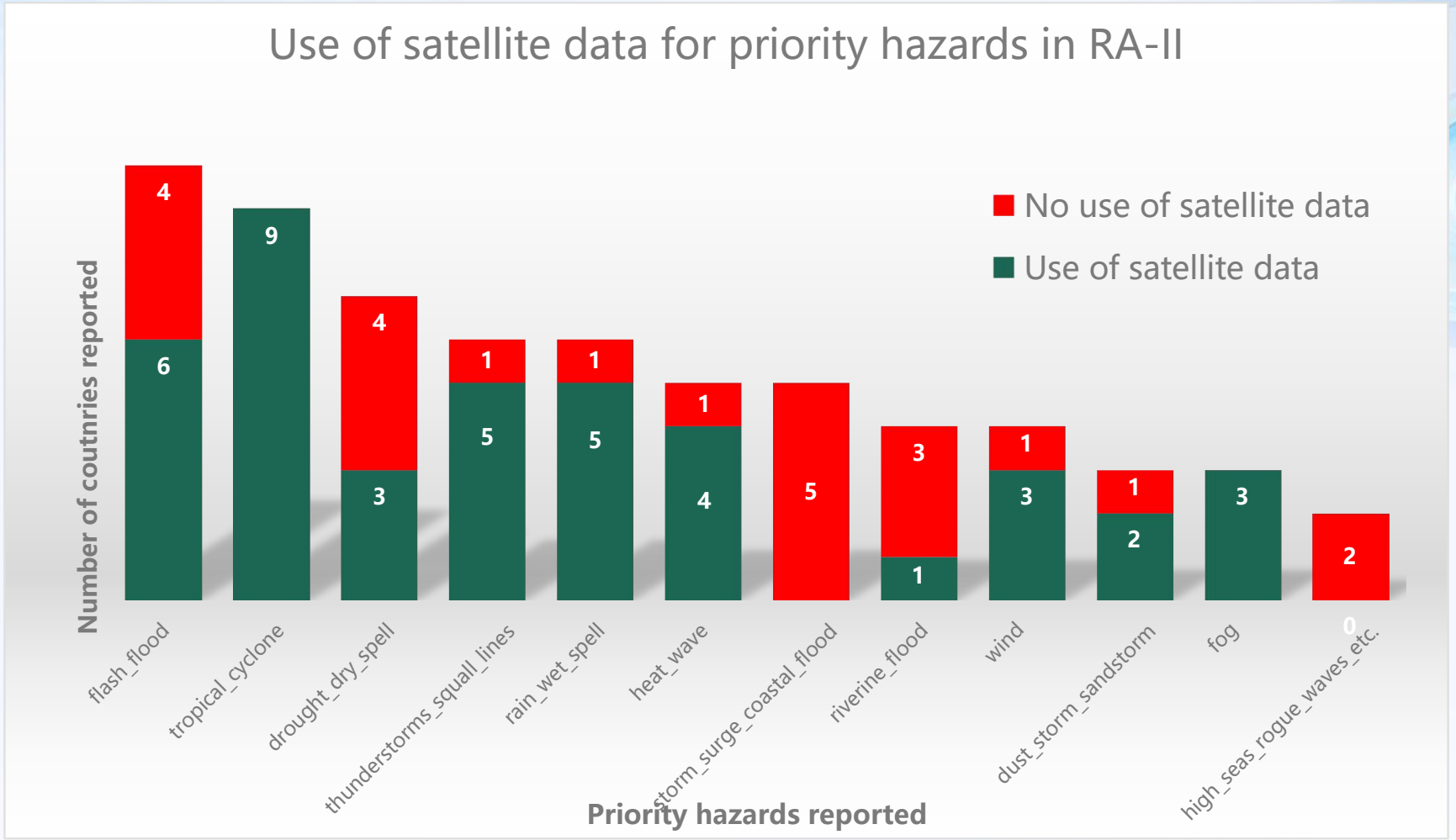
- **13 countries in RA-II and RA-V**: Bangladesh, Cambodia, Fiji, Kiribati, Lao PDR, Maldives, Nepal, Samoa, Solomon Islands, Tajikistan, Tomor Leste, Tonga, Vanuatu



👉Explore the Early Warnings for All Dashboard

Early Warnings for All Dashboard

Survey Results in RA-II (Use of Satellite Data)

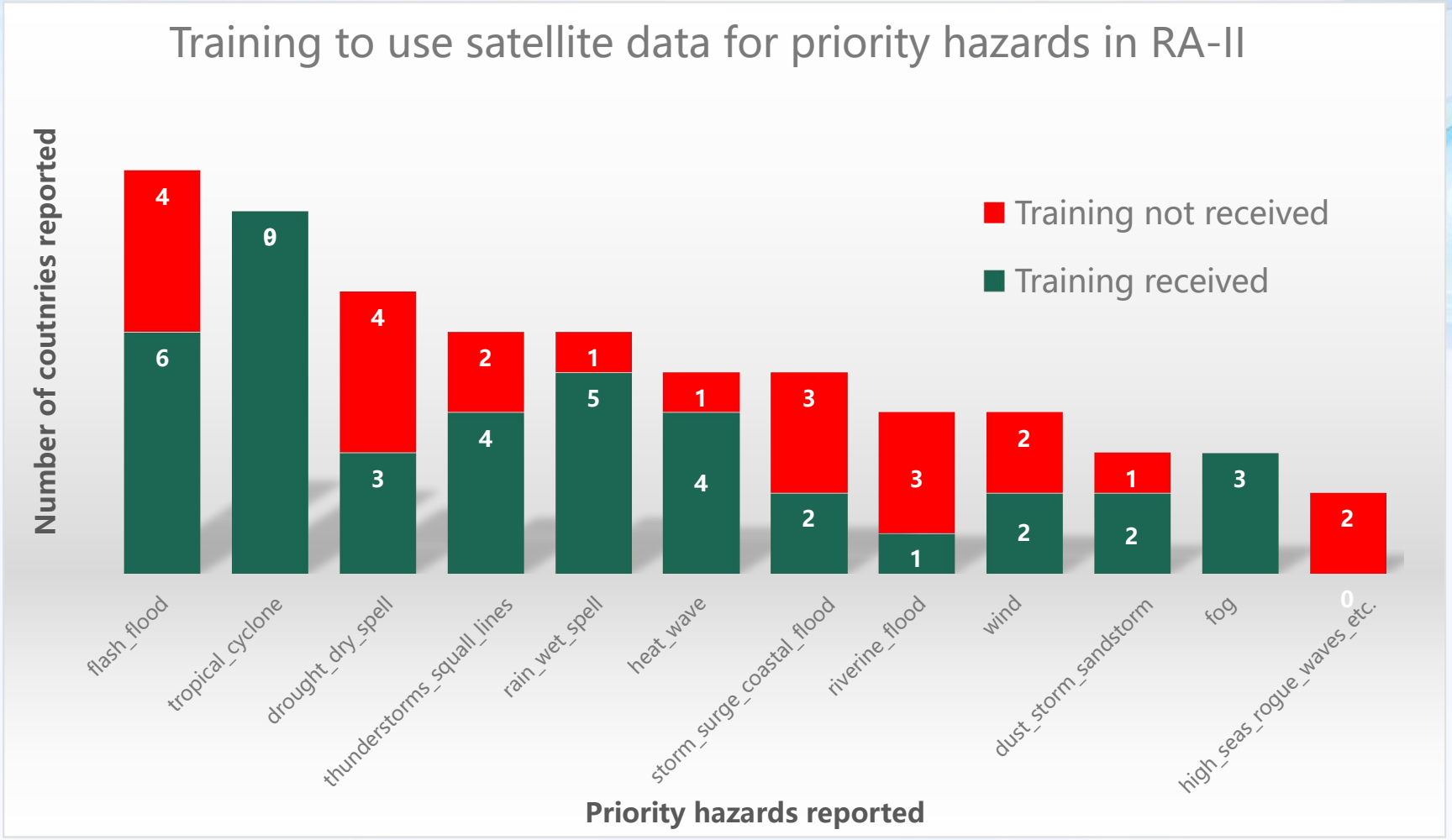


Responses: 15 | No responses: 20

Based on:
- Pillar 2 Rapid Assessments
- WMO Data Monitoring Campaign
- Country Hydromet Diagnostics reports

Priority hydrometeorological hazards refer to the five main hazard types identified by NMHS

Survey Results in RA-II (Training in Use of Satellite Data)

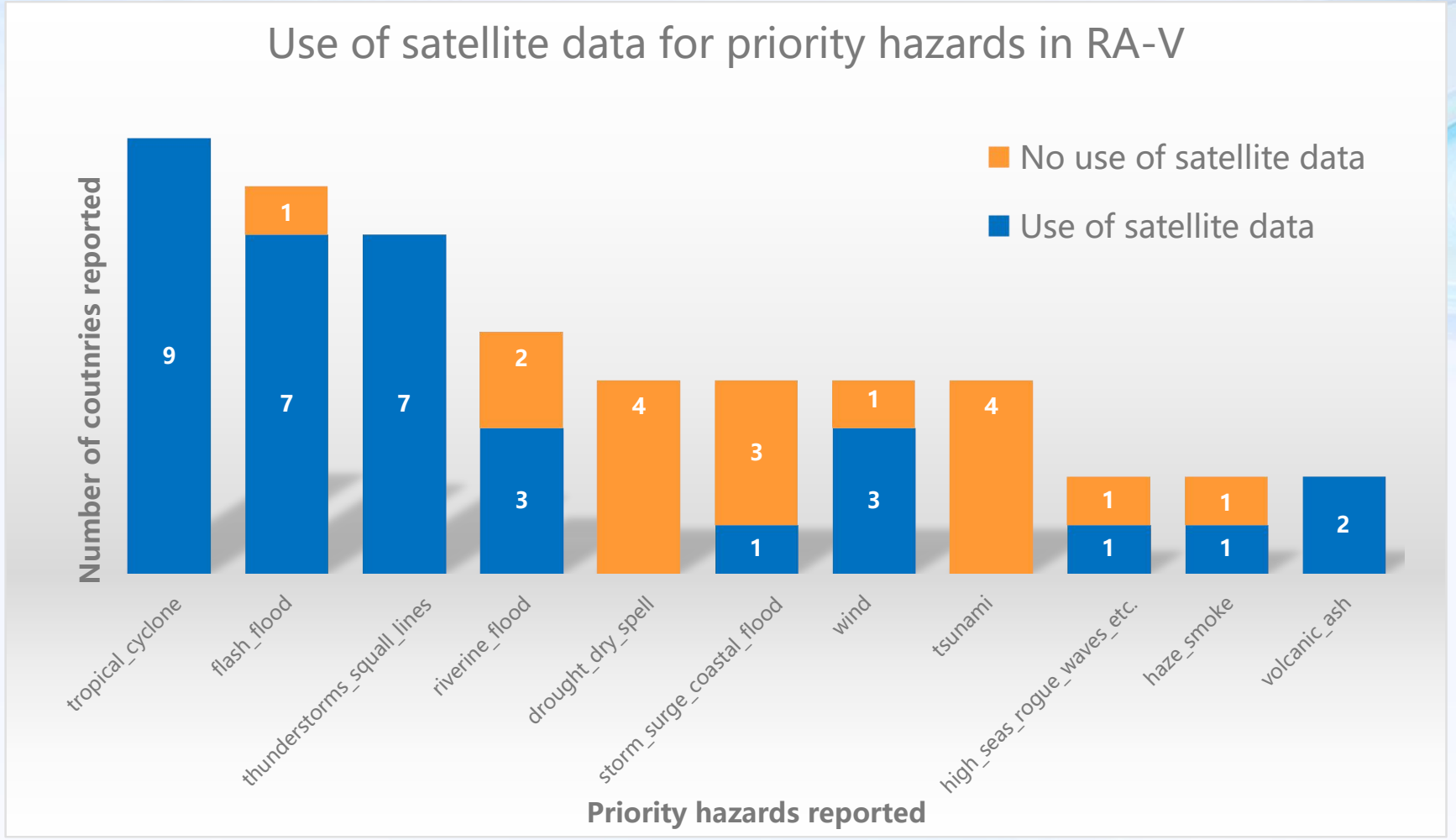


Responses: 15 | No responses: 20

Based on:
- Pillar 2 Rapid Assessments
- WMO Data Monitoring Campaign
- Country Hydromet Diagnostics reports

Priority hydrometeorological hazards refer to the five main hazard types identified by NMHS

Survey Results in RA-V (Use of Satellite Data)

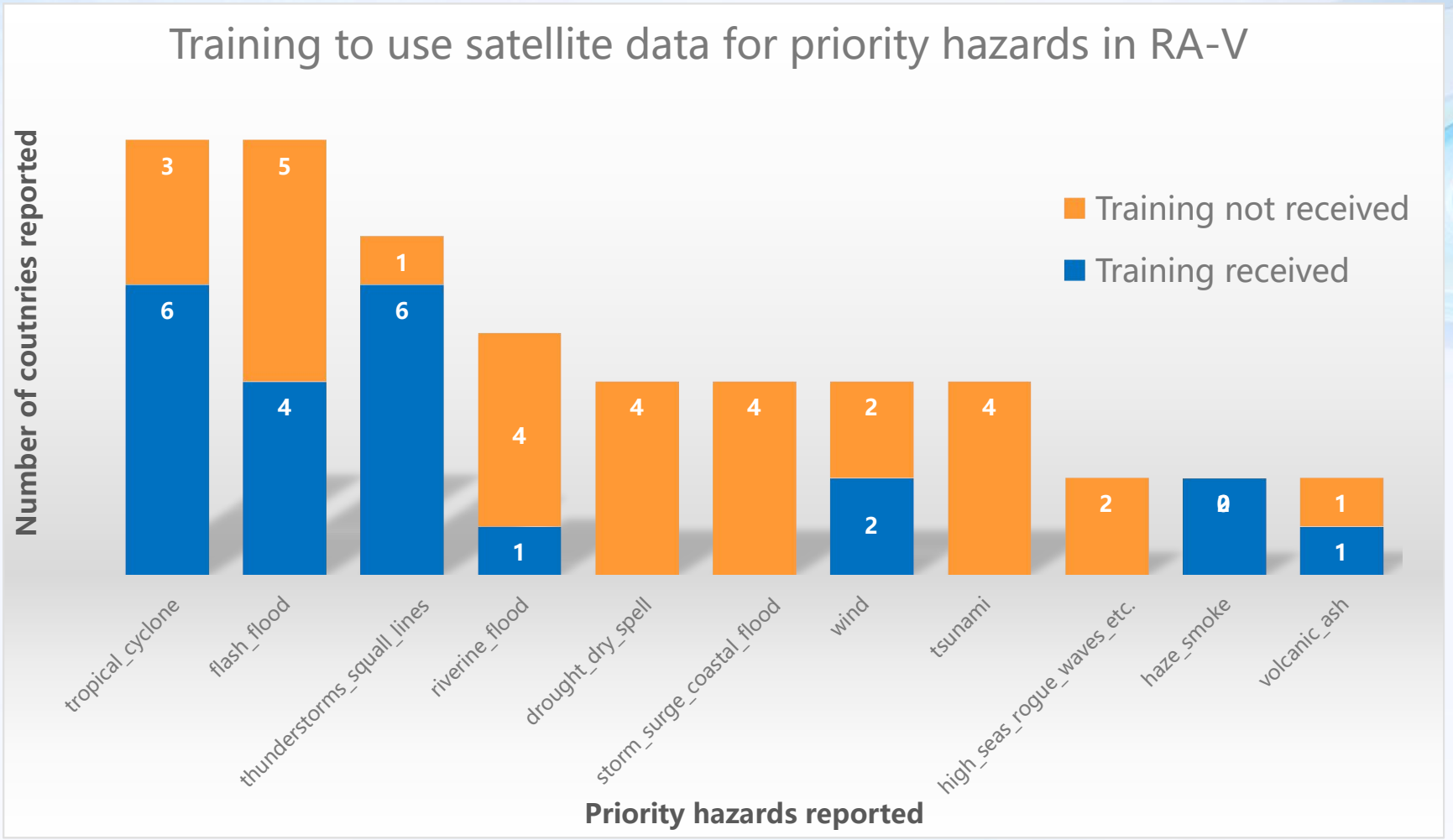


Responses: 12 |
No responses: 8

Based on:
- Pillar 2 Rapid Assessments
- WMO Data Monitoring Campaign
- Country Hydromet Diagnostics reports

Priority hydrometeorological hazards refer to the five main hazard types identified by NMHS

Survey Results in RA-V (Training in Use of Satellite Data)



Responses: 12 |
No responses: 8

Based on:
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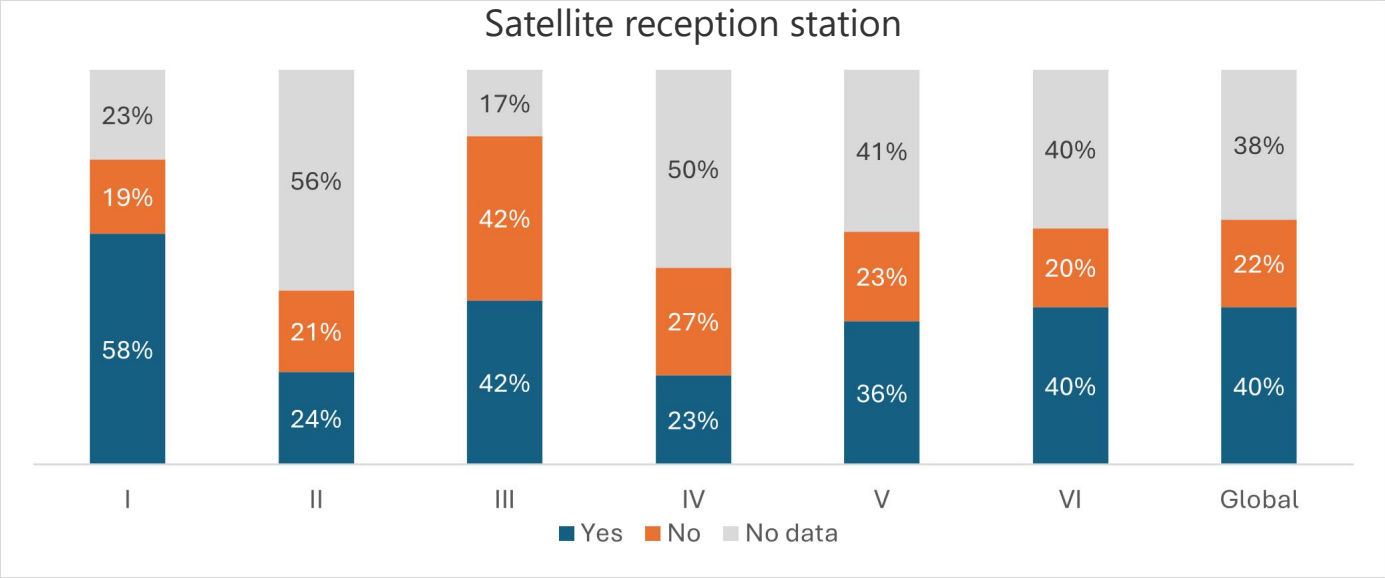
- WMO Data Monitoring Campaign
- Country Hydromet Diagnostics reports

Priority hydrometeorological hazards refer to the five main hazard types identified by NMHS

Survey Results (Global Perspective)



Based on:

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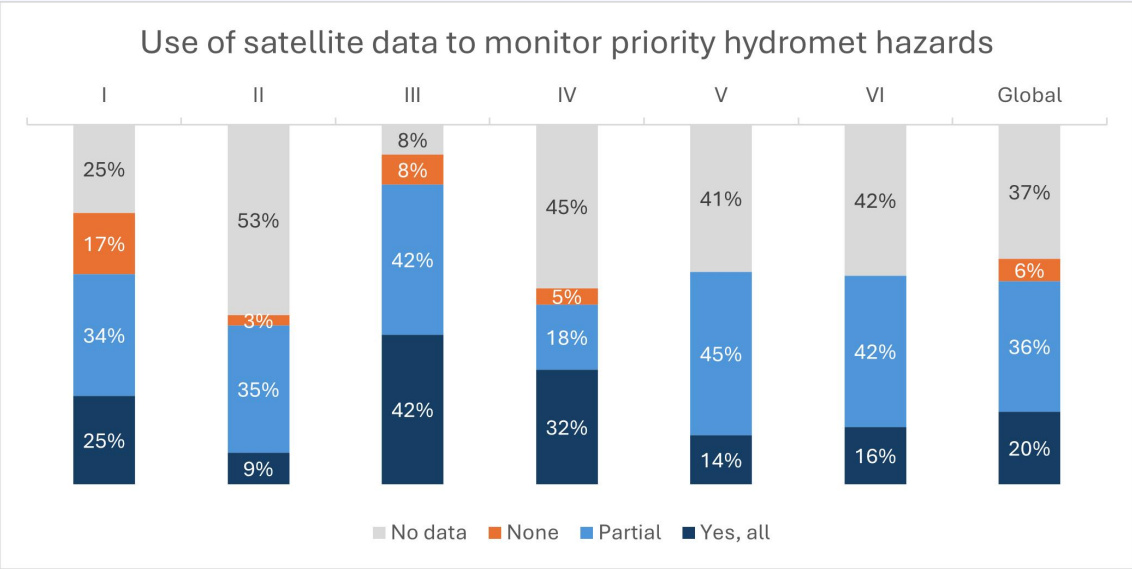

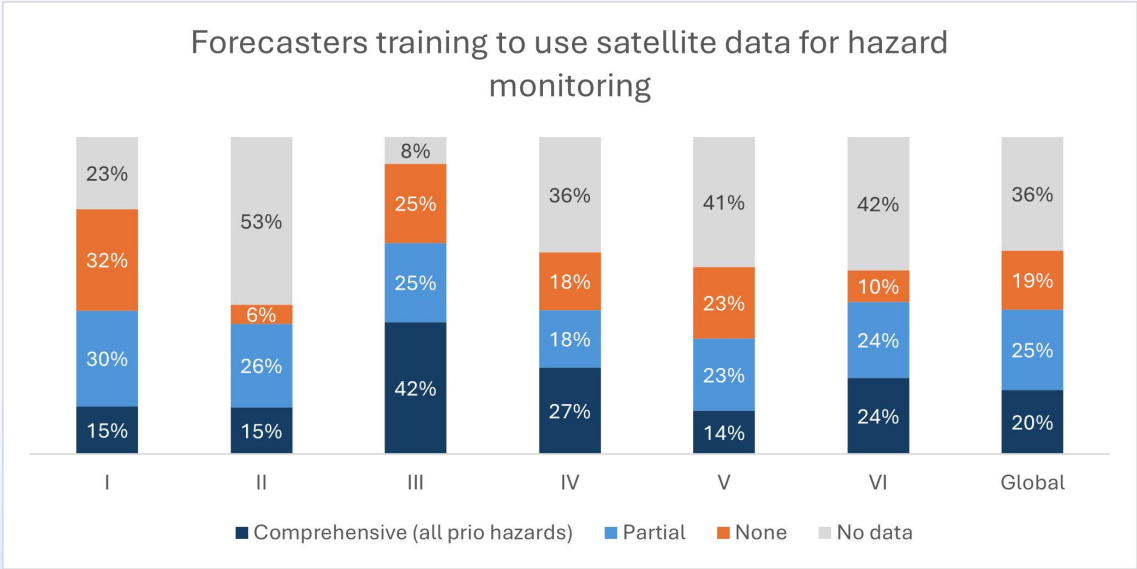

Summary - Key take-aways

- **Satellite Reception Status**
  - Relatively low results for RA-II & close to the global level for RA-V
- **Gaps in Applications**
  - In RA-II: Many countries still do not use satellite data to monitor floods and droughts
  - In RA-V: Droughts are an area required improvement
    - Can be improved by training
- **Capacity Gaps**
  - Many countries report not yet receiving training on monitoring floods and droughts
    - Needs special attention by VLab
  - Training gaps also identified for monitoring tropical cyclones (Kiribati, Timor-Leste, Vanuatu)

EW4ALL Satellite Products Dashboard

- Developed by the WMO Regional Office for Asia and the South-West Pacific in collaboration with Space Programme, based on inputs from satellite data providers responding to a WMO data call.

🌐 https://community.wmo.int/en/ew4all-satellite-products

- Results of the Gap Analysis in support of EW4ALL conducted by the EW4ALL Satellite Task Team will be presented at the Joint RA-II/V meeting.

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Thank you!