



SAHF IBF WG IMPLEMENTATION PLAN PROJECT

REGIONAL WORKSHOP ON IMPACT-BASED FORECASTING (IBF)

Heat Season Review & Cold Season Planning

29 September - 01 October 2026 | Bangkok, Thailand



Global and Regional El Niño Outlooks, Early Warning, and Anticipatory Action Initiatives

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OUTLINE

- 01** Global and Regional El Niño Outlooks consolidated by WMO
- 02** Link to the Early Warnings for All (EW4All) initiative and WMO's role
- 03** Link to Anticipatory Action in Asia-Pacific



Heat Season Review & Cold Season Planning Regional Workshop

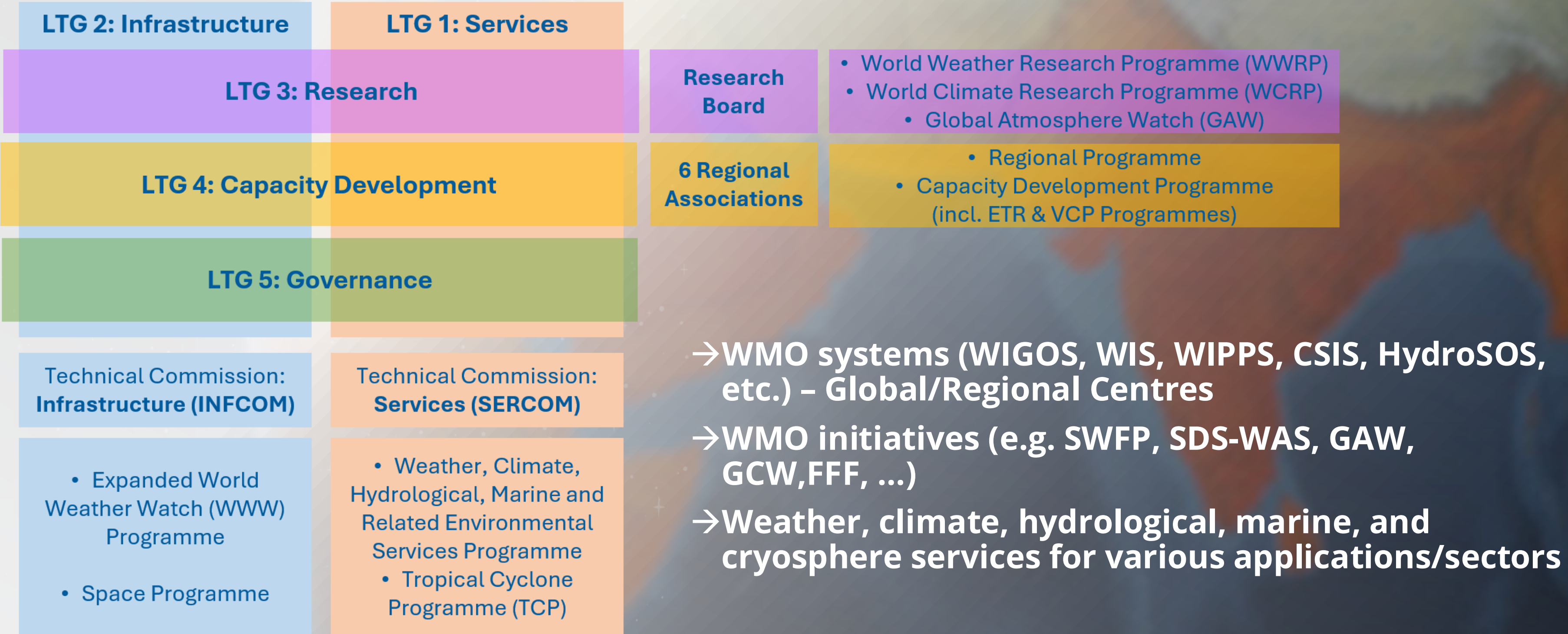
29 September - 01 October 2026

01 Global and Regional El Niño Outlooks consolidated by WMO

Background, information sources, and
coordination efforts



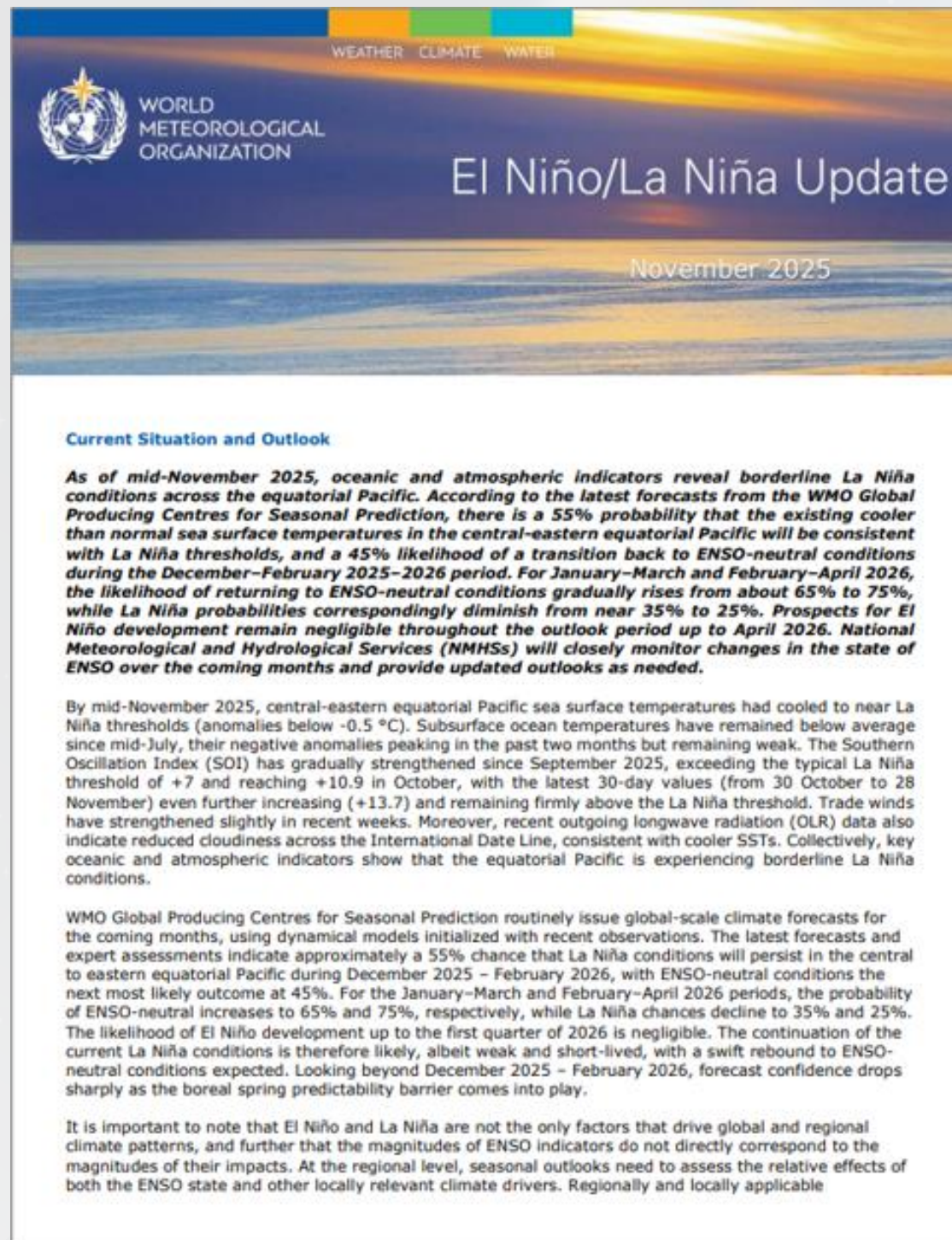
How we work – WMO Strategic and Operating Plans, Constituent Bodies, Major Programmes, and Systems



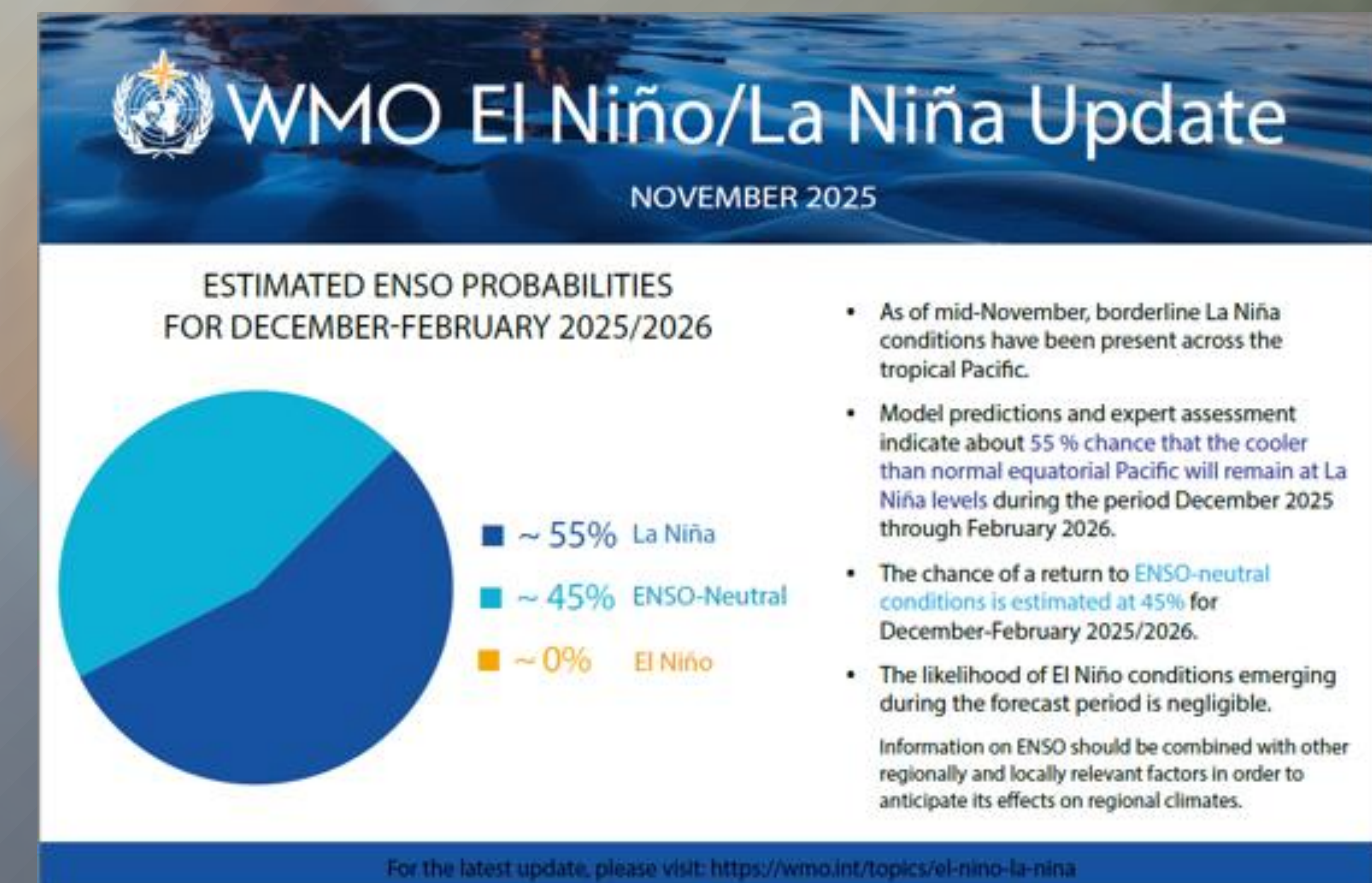
Authoritative sources

- [National Meteorological and Hydrological Services \(NMHSs\)](#)
- [WMO El Niño/La Niña Update](#)
- [WMO Global Seasonal Climate Update \(GSCU\)](#)
- [Global Producing Centres for Seasonal Predictions \(GPCs-SP\)](#)
- [Lead Centre for Seasonal Prediction Multi-Model Ensemble \(LC SPMME\)](#)
- [Regional Climate Centres \(RCCs\)](#)
- [Regional Climate Forums \(RCFs\)](#)
- [Regional Specialized Meteorological Centres \(RSMCs\) & Tropical Cyclone Warning Centres \(TCWCs\)](#)
- [WMO Partner Institutions \(IRI, C3S\)](#)
- [WMO Coordination Mechanism \(WCM\)](#)

WMO El Niño/La Niña Update



- Consensus statement prepared by WMO and IRI
- Produced since 1997
- Produced on a quasi-regular basis (quarterly)
- ENSO conditions and its possible evolution over the next season
- Humanitarian support to countries at high risks from ENSO
- Available in English, French and Spanish

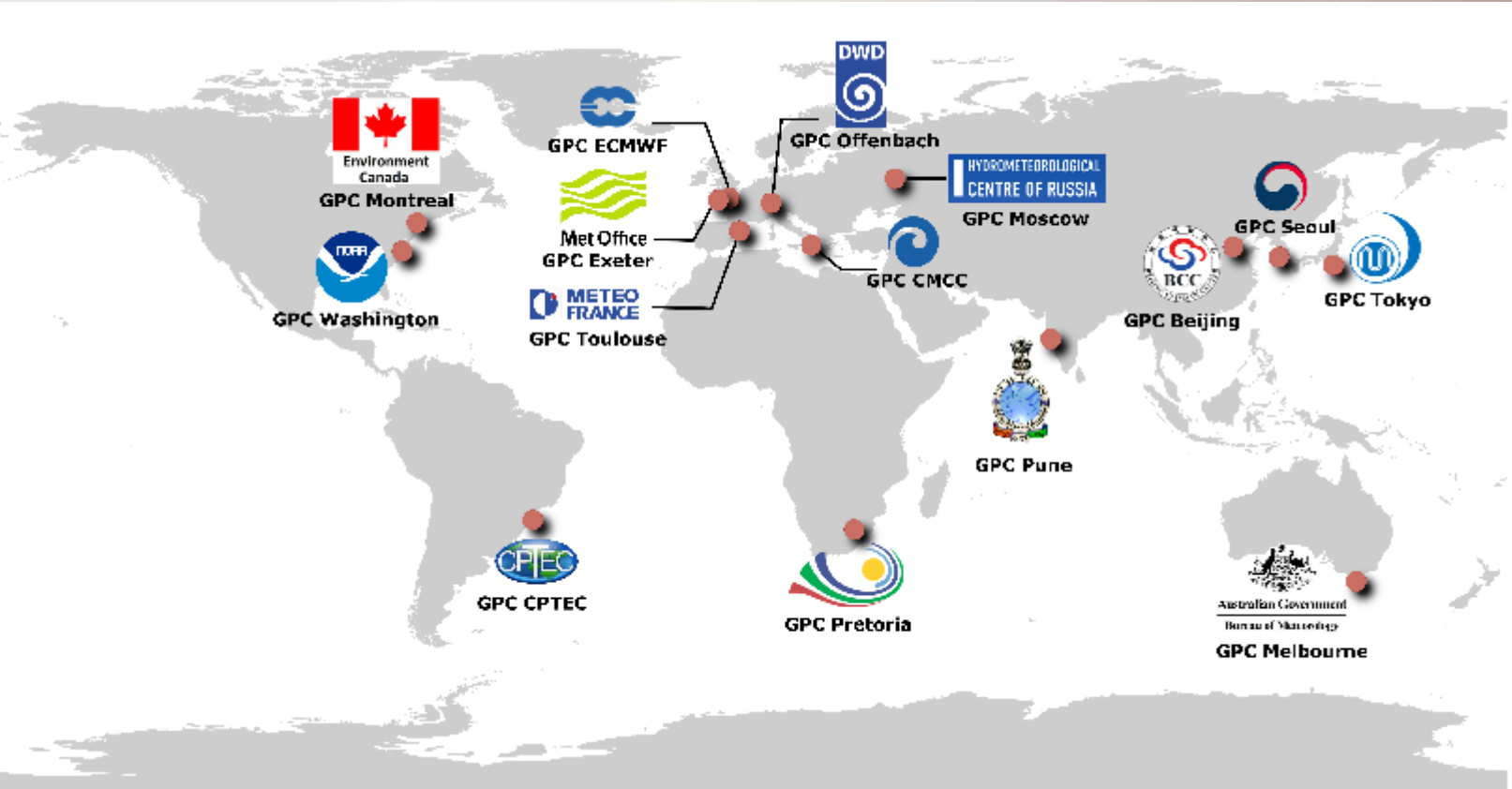


WMO Global Seasonal Climate Update (GSCU)

GPCs-SP

15 WMO Global Producing Centres for Seasonal Prediction

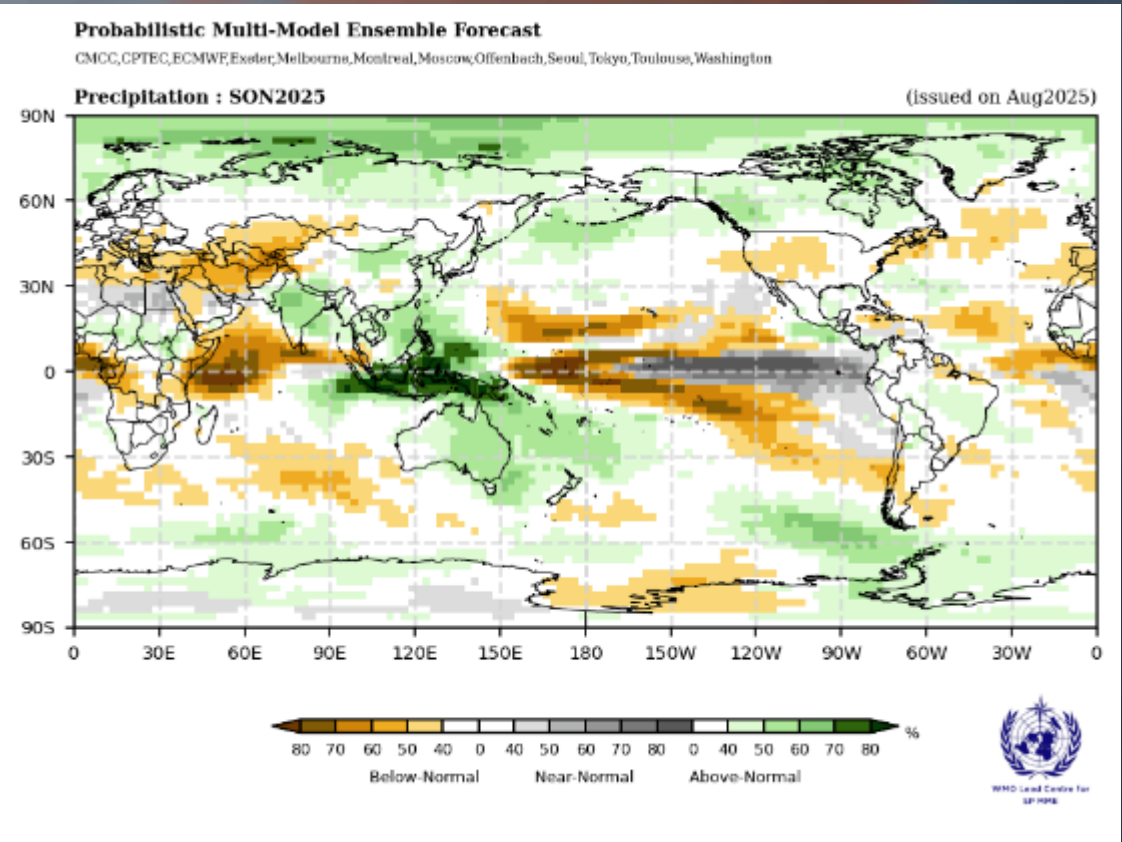
- The El Niño/La Niña Update explains the driver - the GSCU translates it into seasonal patterns
- RCCs/NMHSs turn it into regional and national guidance.



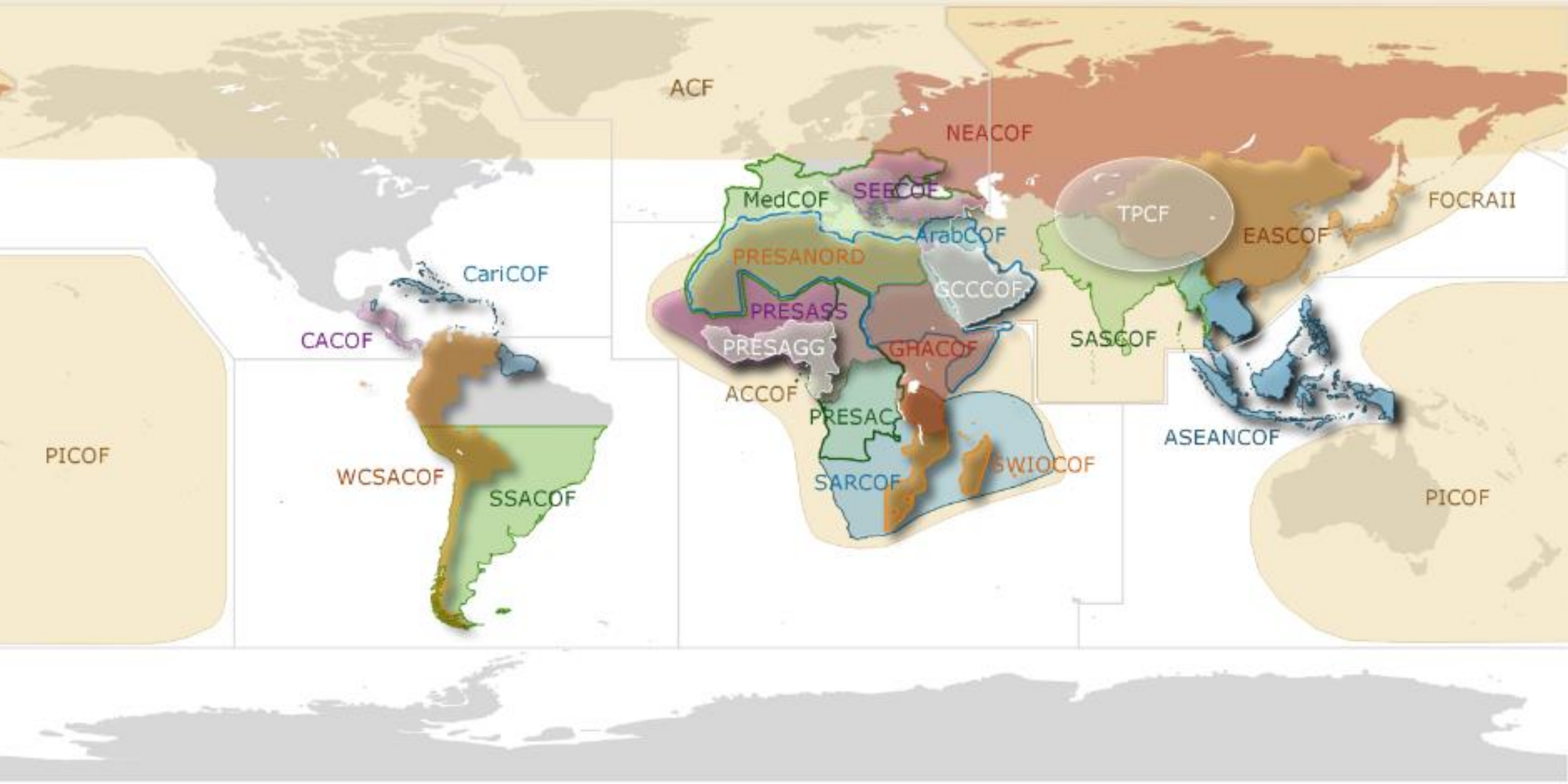
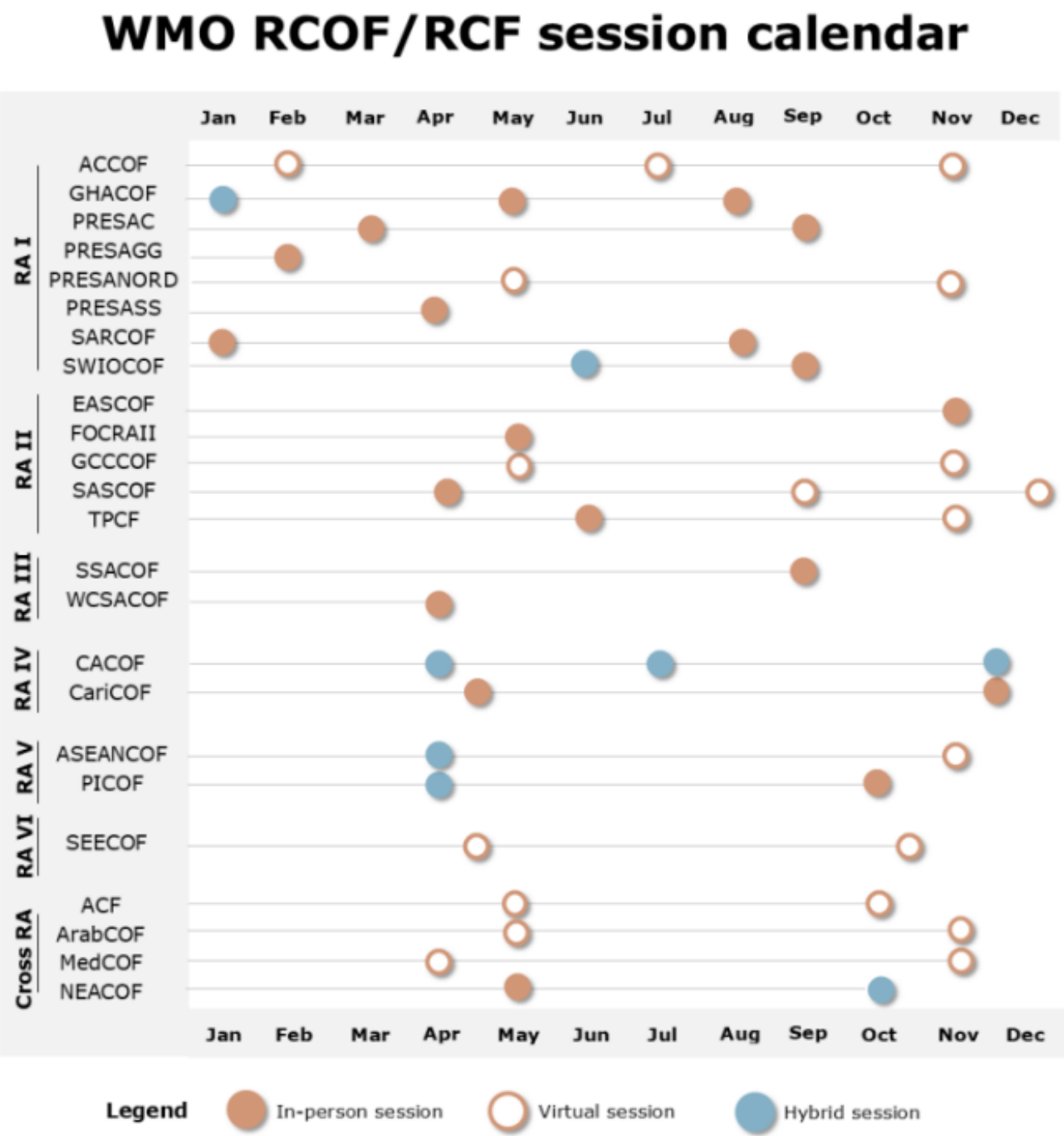
LC-SPMME

WMO Lead Centre for Seasonal Prediction Multi-Model Ensemble

- Collects retrospective and real-time predictions from GPCs-SP, produces multi-model predictions & verifications
- Issues the GSCU every month



WMO Regional Climate Outlook Forums (RCOF) and Regional Climate Forums (RCF)



• <https://wmo.int/activities/csis/regional-climate-outlook-forums-and-regional-climate-forums>

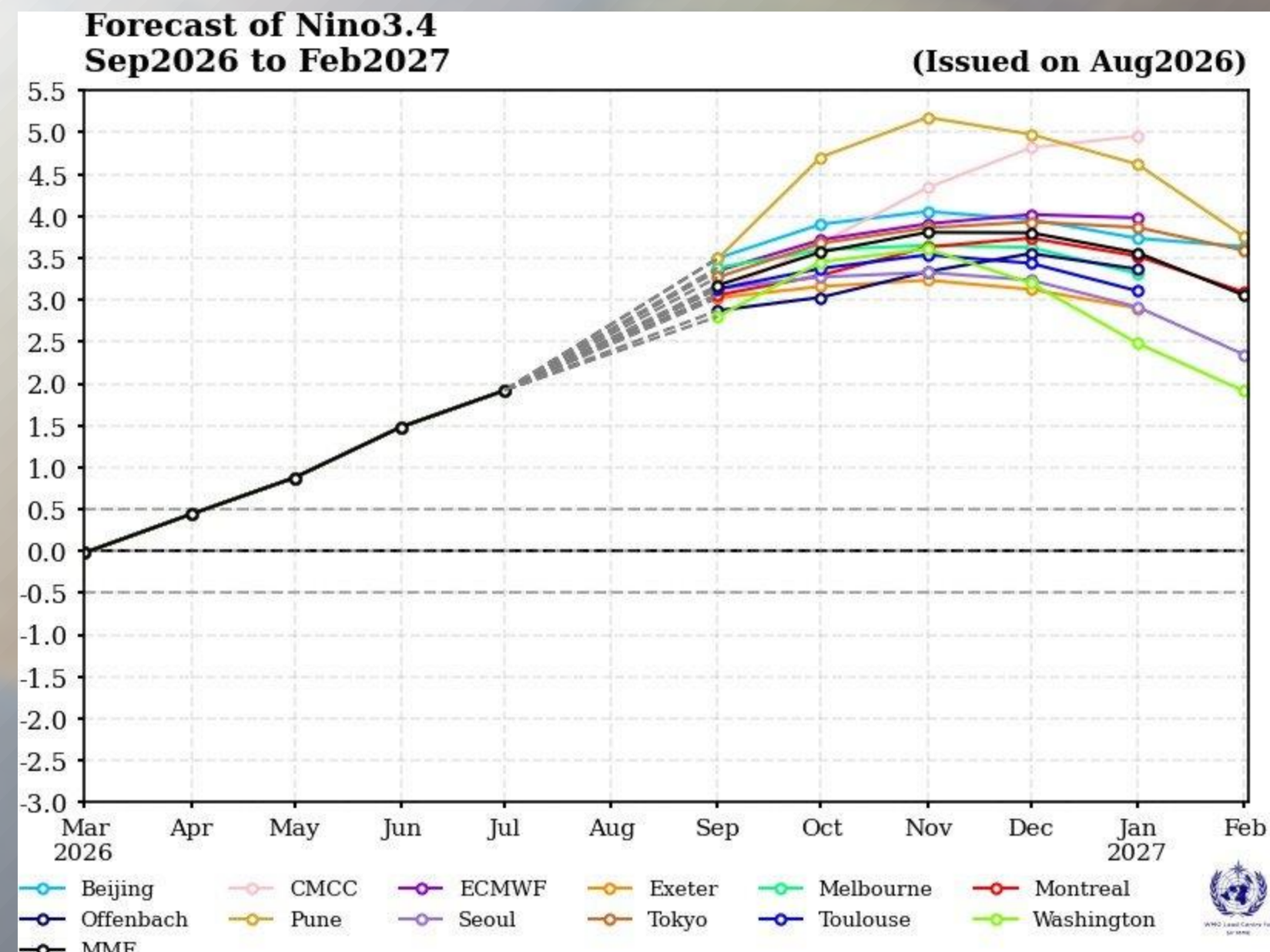
El Niño – what we have observed and forecast

Oceanic observations

- The central and eastern tropical Pacific Ocean has warmed significantly, continues to rise, with unusually warm water below the ocean surface, indicating that El Niño is strengthening.
- A positive phase of the Indian Ocean Dipole (IOD) is forecast to develop in September–November 2026 (some uncertainty) and may further influence seasonal climate anomalies.

Atmospheric observations

- Changes in the atmosphere are consistent with a strengthening El Niño.
- Rainfall and cloud activity have increased over the central and eastern tropical Pacific and decreased over the western Pacific - another characteristic of El Niño.



- Seasonal forecasts indicate exceptionally strong El Niño conditions, with the SST Niño 3.4 forecast to reach **+3.5 °C** for Sep–Nov 2026 and **+3.8 °C** in Nov.
- Exceptionally high likelihood of **near-100% probability** that El Niño will persist through Sep–Nov 2026 and Dec 2026–Feb 2027.
- **This is the first time a WMO El Niño/La Niña Update has expressed such a high level of confidence**, reflecting strong agreement across WMO's forecasting network.

What does it mean?

- The event could rank among the strongest El Niño events in the historical record since 1950.
- *A very strong El Niño* **could contribute to exceptionally high global temperatures in 2026 and 2027**, as its warming influence can persist beyond the event's peak.
- **No two El Niño events are identical**: regional impacts depend on the event's characteristics, timing, interaction with other climate drivers and local exposure and vulnerability.
- Event strength alone does not determine regional impacts, which may also occur with a lag and persist beyond the peak. This underscores the importance of continuous monitoring and updated forecasts.
- **Hazards**: Above-normal rainfall may contribute to heavy rainfall, flooding, flash floods, riverine flooding, displacement and associated livelihood disruptions, particularly in flood-prone areas
- **Areas of concern**: Much of Asia (especially portions of Central Asia and eastern Asia)
- **Confidence**: Moderate to high
- **Hazards**: Combination of below-normal rainfall and above-normal temperatures could contribute to higher evapotranspiration, heat stress, soil moisture deficits and water stress
- **Areas of concern**: Countries of the Bay of Bengal, much of Southeast Asia, southern coastal areas of Australia
- **Confidence**: High

WMO Coordination Mechanism (WCM) to support humanitarian activities

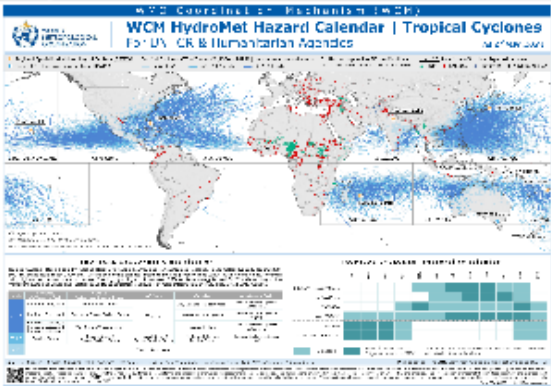
Tropical cyclone typical activity in Sep-Nov:

- N Indian: ongoing (peak in Nov)
- NW Pacific: ongoing (peak of the season)
- SE Indian & S Pacific: season starting in Nov

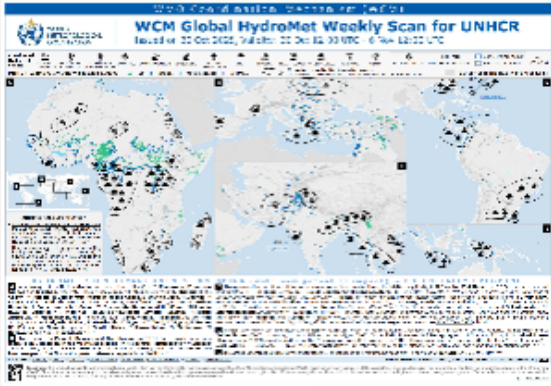
Global

Local / Regional

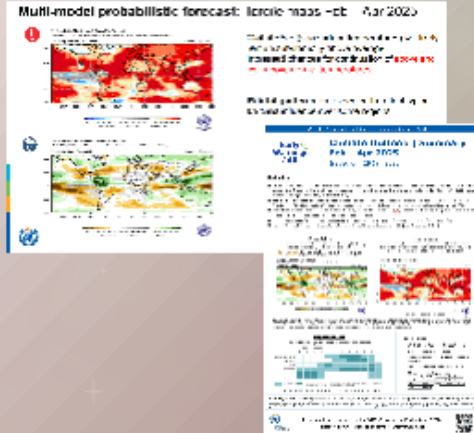
HAZARD CALENDARS



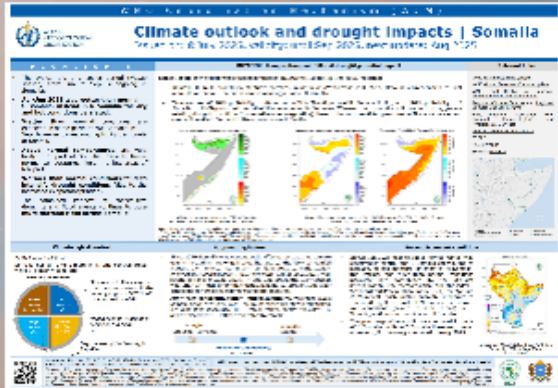
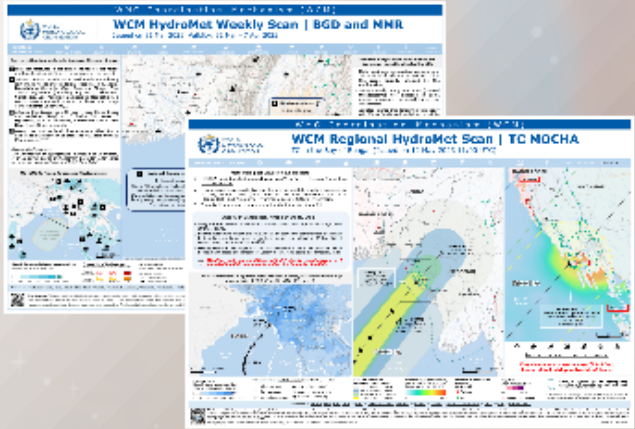
WEEKLY & TCs SCANS



CLIMATE BRIEFINGS & SCANS



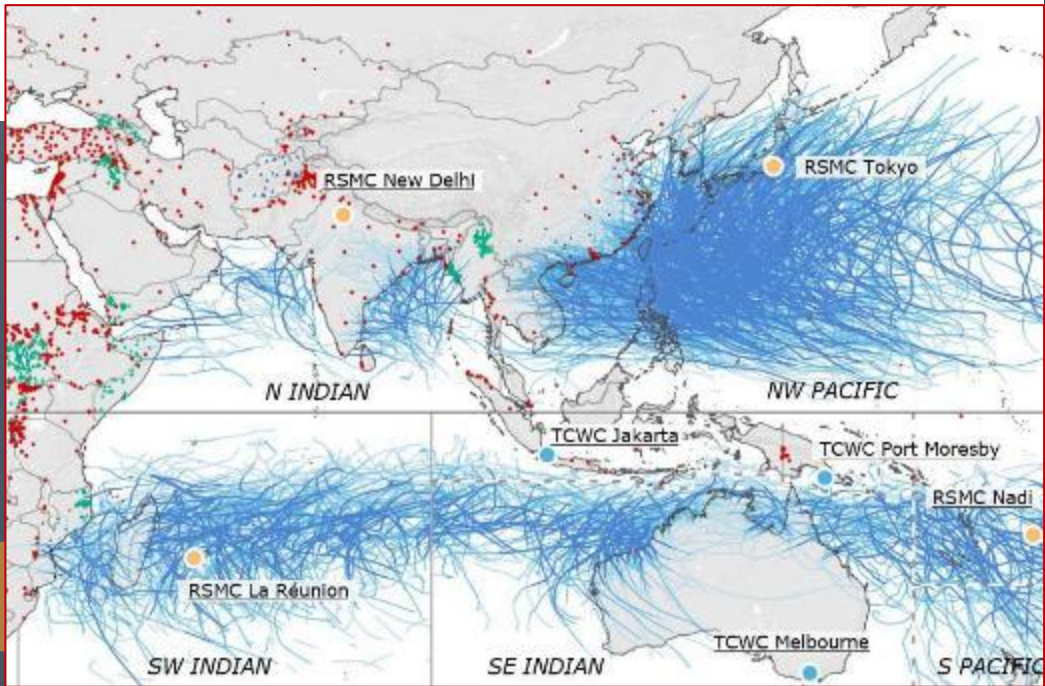
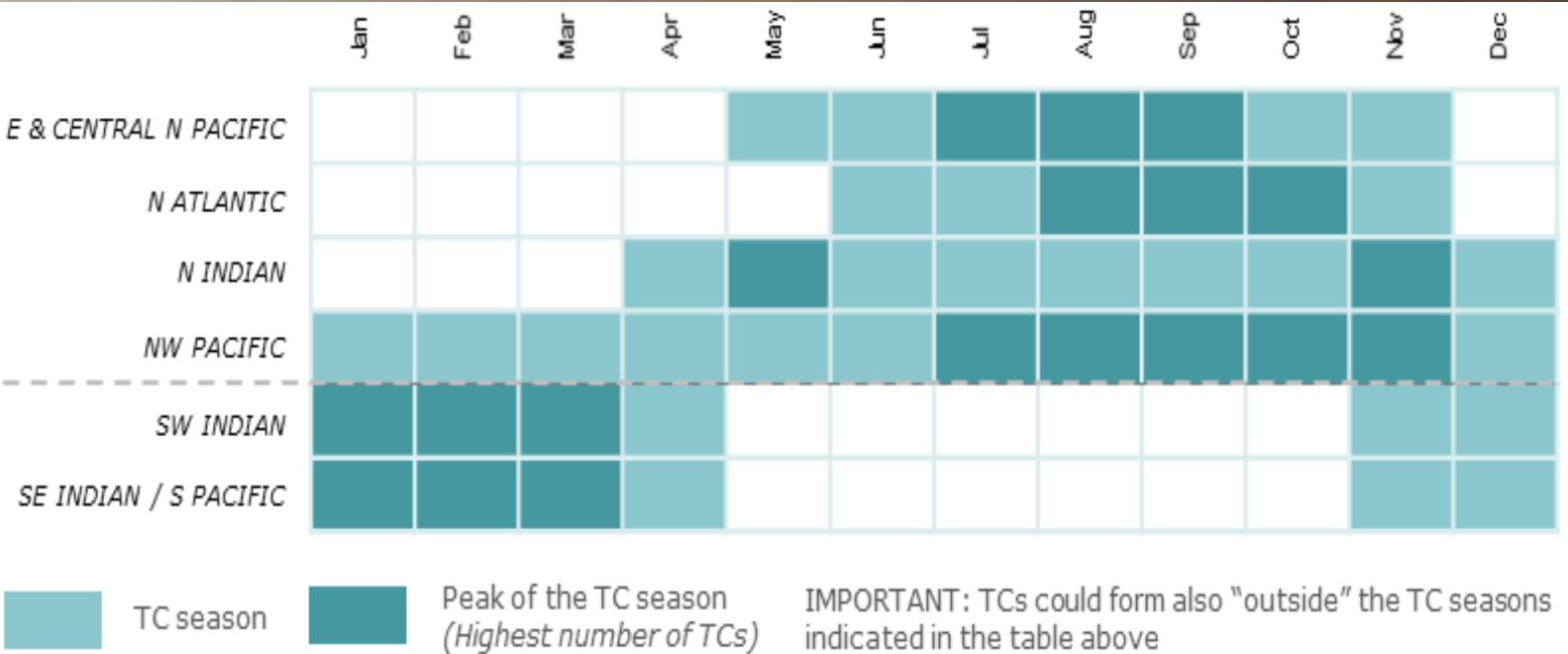
**WCM Delivery to
UN and HA
Since 2021**
600+
(scans and briefings)



years

days / week

month / season

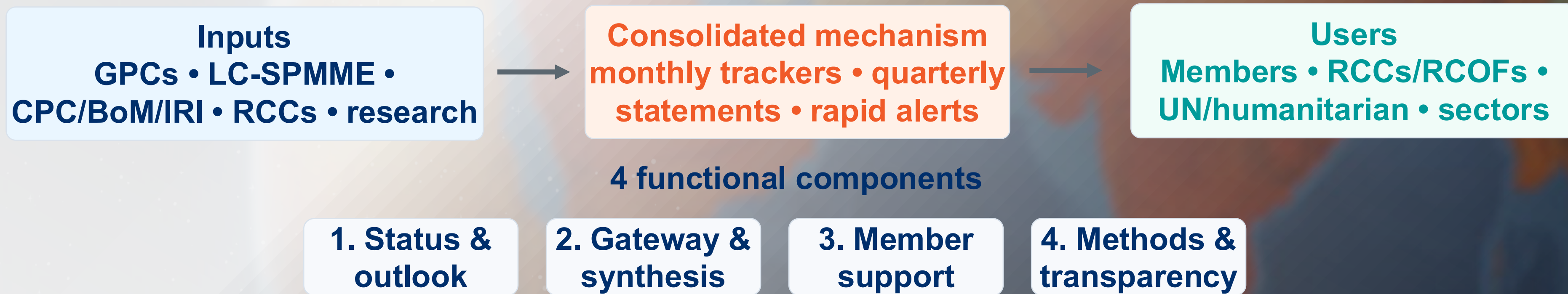


WCM: co-designed and tailored solutions for UN and Humanitarian Agencies.
To subscribe, contribute or support WCM, please contact wcm@wmo.int

REGIONAL WORKSHOP ON IBF: HEAT SEASON REVIEW & COLD SEASON PLANNING

WMO ENSO information mechanism

- Purpose: institutionalize a sustainable, authoritative ENSO service without duplicating WIPPS centres (EC-78, Resolution 10, 2024).



Implementation pathway:

**Call developed in Mar 2026 → deadline 30 Sep 2026 → evaluation Oct-Nov 2026
→ selection Dec 2026**

Link to the Early Warnings for All (EW4All) initiative and WMO's role

Ensure everyone, everywhere is protected by life-saving MHEWSs, turning warnings into action, through coordinated, sustainable, and collaborative efforts at all levels and across the political, science & technology, and financial spheres.

NOT a new, standalone programme – rather a campaign, call to action, brand and new, coordinated way of working together



EW4All overview



Led by



Know



Pillar 1

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?

Detect

Led by



Pillar 2

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?

Inform



Pillar 4

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?



Pillar 3

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?

Led by



Act

Led by



- ✓ GLOBAL → Global Action Plan, Advisory Panel, Inter-Pillar Group, Guidance Docs
- ✓ REGIONAL → Coordination through Regional Offices of Pillar Leads, Regional Roadmaps/Plans

WMO's role in EW4All & Pillar 2 via its systems & initiatives

WMO frameworks	Pillar 1	Pillar 2 (value chain)					Pillar 3	Pillar 4
WIGOS		Outcome 1: Monitoring & Observations	Outcome 2: Data Management & Processing	Outcome 3: Forecasting (Priority Hazards)	Outcome 4: Warnings (IBFWS)	Outcome 5: Institutional & Policy Arrangements		
WIGOS		✓						
GBON/RBON		✓						
WIS/WHOS			✓					
WIPPS/CSIS	Seasonal climate		✓	✓				
CHE	✓	✓	✓		✓	✓	✓	
SWFP	Severe Weather			✓	✓			
TCP	Tropical Cyclones			✓	✓			
FFGS	Flash Floods			✓	✓			
CIFI	Coastal Inundation			✓	✓			
HydroSOS		✓	✓	✓				
APFM	Floods & Droughts				✓	✓	✓	
IDMP					✓	✓	✓	
WWRP		✓	✓	✓	✓	✓	✓	
WCRP	Air Pollution,		✓	✓	✓	✓		
GAW/SDS	Sand & Dust Storms			✓	✓			
CAP					✓		✓	
WCM					✓	✓	✓	✓
GHHIN	Heat				✓	✓	✓	✓

EW4All – National roll-out

FOCAL POINTS

Appoint national EW4All coordinators and government agency focal points, coordinate among national counterparts, UN Country Teams and regional Pillar leads/partners

LINK & ALIGNMENT

Consolidation of key stakeholder engagements & linkages with existing EWS projects and strategies/plans

CONSULTATION WORKSHOPS

Introduction to EW4All, calibrate with national priorities, verify gap analyses (could be together with project design consultations)



 **Interpillar toolkit**

GAP ANALYSIS

Government-led discussion on current state of EWS, application of Minimum Core Capability Checklist for all four Pillars

COORDINATION MECHANISM

Affirm existing or establish a new national stakeholder coordination mechanism

NATIONAL ROADMAP

Leverage existing EWS strategy or develop a multi-year, multi-stakeholder EW4All national action plan with budgeted activities → mobilise domestic & external funds

- ✓ **Bangladesh, Nepal, Maldives**
- ? Bhutan, Pakistan, Sri Lanka?
- **All of government & multi-stakeholder**
- **Donor coordination**
- **Sustainability**

Global guidance documents

Updated Early Warning Technical Regulations (Oct 2025)



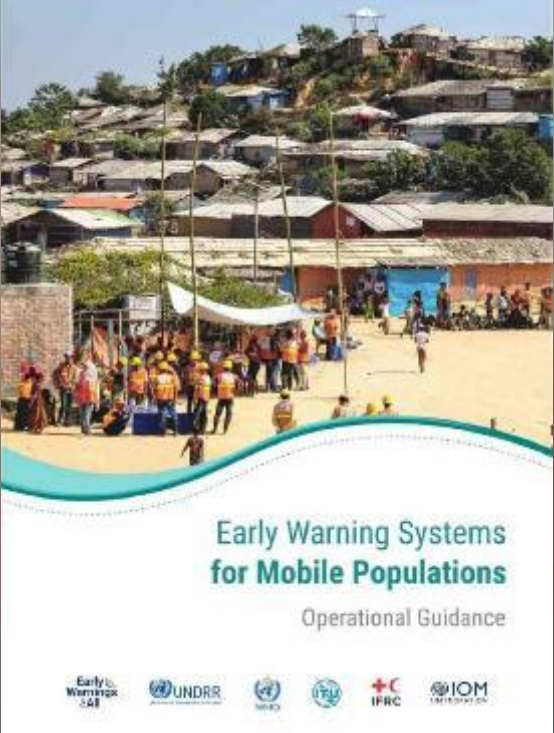
Leveraging AI to Enhance MHEWS (July 2026)



After Event Review (AER) & Simulation Manual (Aug 2026)



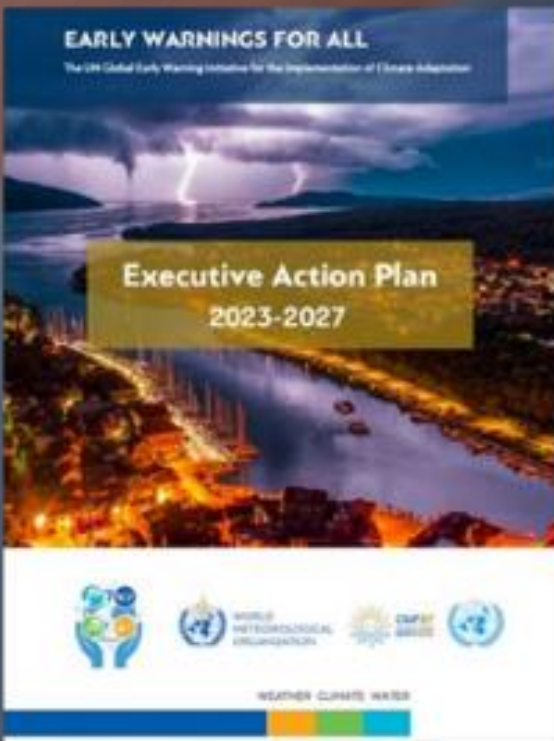
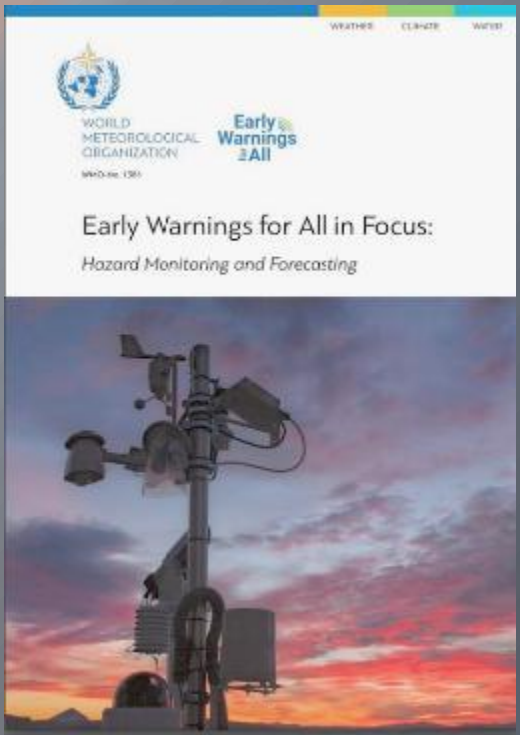
Early Warning Systems for Mobile Population – Operational Guidance



EW4All Newsletter



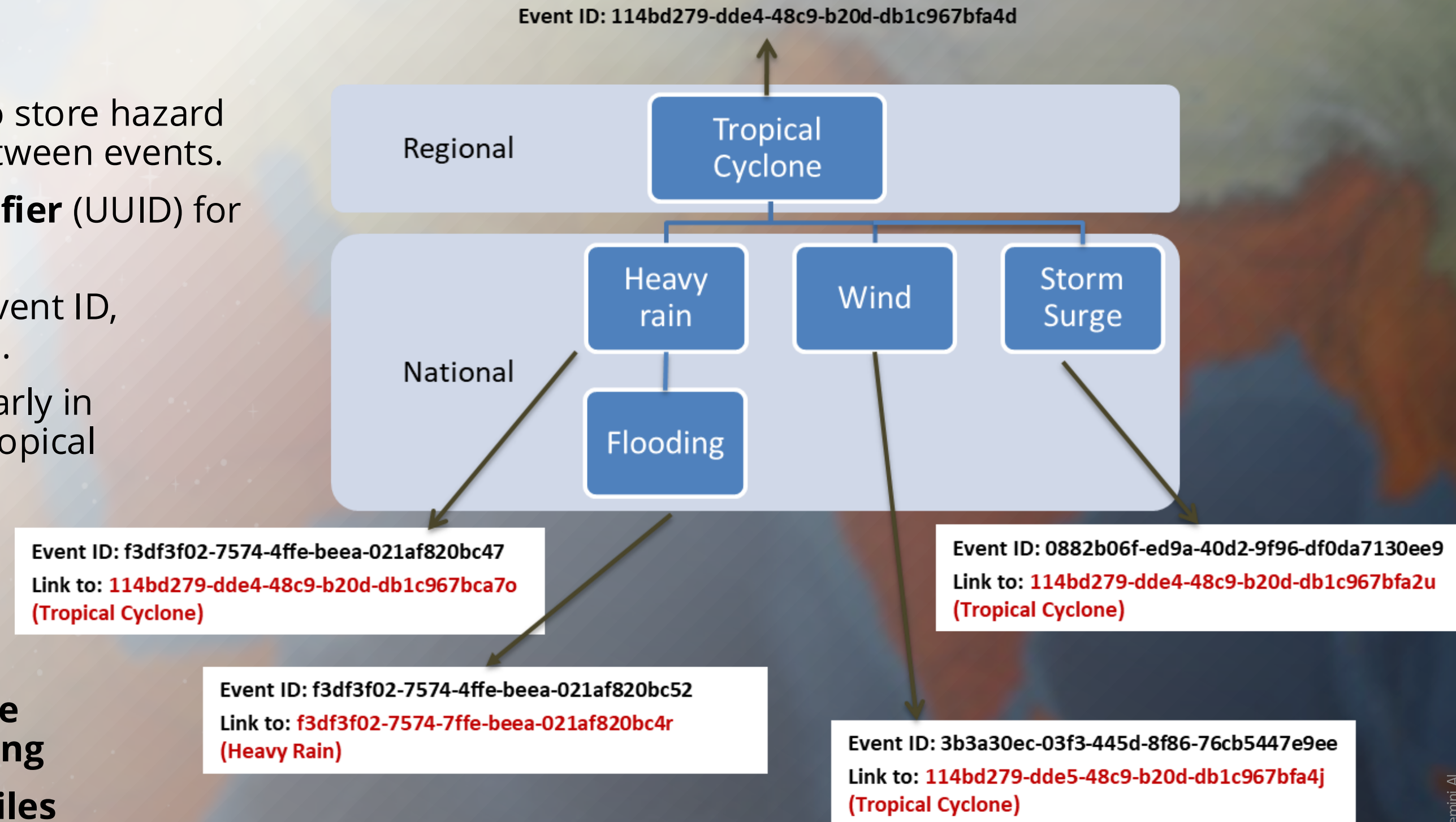
COPE Series



The WMO Cataloguing of Hazardous Events (WMO-CHE) initiative

- Uses a **hierarchy-free database** to store hazard data, allowing dynamic linkages between events.
- Assigns a **Universal Unique Identifier** (UUID) for each recorded event.
- Includes **mandatory attributes** (event ID, originator, time, location, type, etc.).
- Allows for **event linkages**, particularly in cascading hazard situations (e.g., tropical cyclones causing floods).

→ Links to UNDRR's Delta Resilience Tool for Loss & Damage Accounting
→ Used for UNDRR-ISC Hazard Profiles



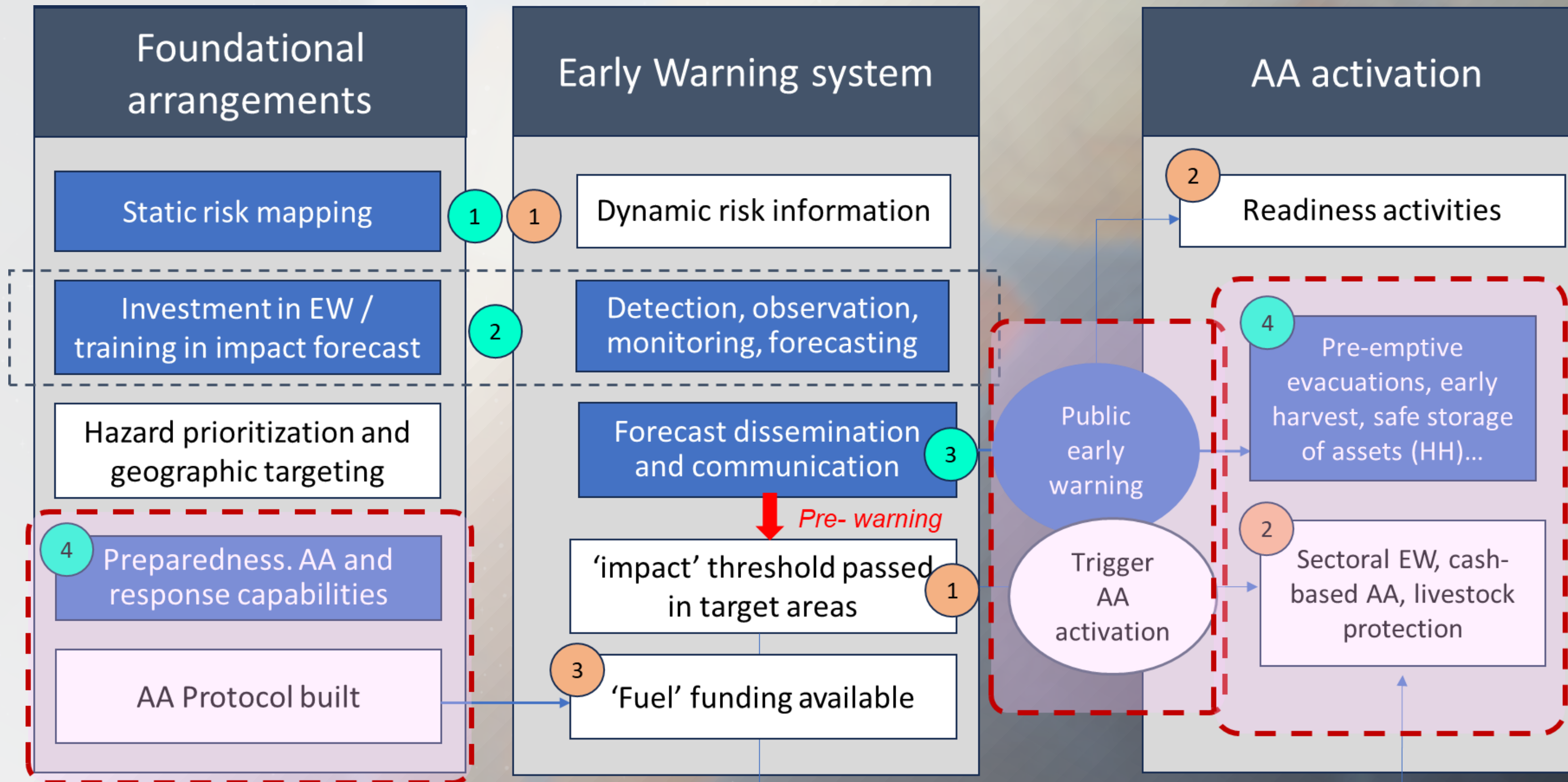
Link to Anticipatory Action in Asia-Pacific

- WMO is a Member of the Anticipation Hub
- At regional level, WMO is a member of the Asia-Pacific Technical Working Group on Early Warnings and Anticipatory Action (AP TWG ET-AA)
- Increasingly, NMHSs are members of national TWGs on AA

Links between EWS & AA

EW4AII
pillars

AA building blocks



Activities of the trigger sub-group of the AP TWG EW & AA

Priotiy activities

1.1. Document and synthesise evidences on how triggers for AA are developed/harmonised in the region

- Ongoing comparative study in several countries

1.2. Establish a communication mechanism/platform) to allow sharing of timely information on potential hazards

- **RIMES tools?**

1.3. Capacity development on IBF/IF, invest in strengthening the NHMS capacities to provide skilful forecasts for priority AA areas

- **Develop training modules**
- **Conduct a workshop with the different providers of IBF/IF (Dec or early 2027)**
- Consider a massive online open course (MOOC)

1.4. Foster coordination and integration of EW4All and AA

- **Disseminate the finalised technical note on linkages between EWS and AA**
- Work on other policy briefs (e.g. on forecast/risk data sharing between ministries) to help build national triggers
- **Collaborate on EW4All launches/roadmaps**
- Research on vulnerability curves and damage functions of different structures, crops, etc. against various hazards

Asia Pacific Dialogue Platform on AA (17-19 November 2026, Bangkok)

- Consultations on post-2027 EW4All
- Harmonization of trigger methodologies
- Session on cataloguing hazardous events and linking hazard and impact databases

IASC Emergency Preparedness Working Group (EPWG) & Regional ENSO Cell

COUNTRIES OF CONCERN · SEP–NOV 2026



WHAT DEFINES A TIER

Tiers reflect four sets of indicators considered together, over a three-month forward-looking window. No single indicator sets a tier on its own.

1 SEASONAL RAINFALL SIGNAL

The September–November rainfall outlook — drier or wetter than average — and its timing against national crop calendars.

3 PRE-EXISTING FOOD INSECURITY

Acute food insecurity already recorded, and the scale of the existing humanitarian caseload.

2 3FS EXPOSURE

Fuel and food price increases, dependence on imported fertilizers, and the change in real GDP growth since the onset of the Middle East crisis.

4 NATIONAL COPING CAPACITY

The capacity of national systems to absorb and respond to a shock of this kind without external support.



THANK YOU

FOR YOUR ATTENTION