

ESCAP/WMO TYPHOON COMMITTEE  
FIFTY-SIXTH SESSION  
27 FEBRUARY-1 MARCH 2024  
KUALA LUMPUR, MALAYSIA

FOR PARTICIPANTS ONLY  
WRD/TC.56/14  
6 February 2024  
ENGLISH ONLY

## **COORDINATION WITH OTHER ACTIVITIES OF THE WMO TROPICAL CYCLONE PROGRAMME**

### **ACTION REQUIRED:**

The Committee is invited:

- a) Review the activities carried out under the TCP since its fifty-fifth session (Macao, China, March 2023, online) and the proposals for the future, which are indicated in Appendix B to this document or otherwise reported to the session; and,
- b) Consider what further measures, if any, may be taken to strengthen coordination between its own activities and those conducted under other parts of the TCP.

### **APPENDICES:**

Appendix A – Draft Text for Inclusion in the Session Report

Appendix B – Coordination under WMO TCP

## **APPENDIX A**

### **DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT**

1. The Committee received a presentation on activities falling under the Tropical Cyclone Programme (TCP) and those requiring coordination through it. The Committee expressed its appreciation for the thorough presentation and extended gratitude for the support provided by the WMO to the Committee.
2. The Committee was informed of the following Resolutions and Decisions from WMO constituent bodies, of relevance for the TCP:
  - United Nations Early Warnings for All initiative (EW4All)
  - WMO Strategy for Service Delivery
  - Tropical Cyclone Programme
  - Tropical Cyclone Forecasting Competency Framework
  - WMO Guide for NMHSs in support of national MHEW Services
  - WMO Coordination Mechanism – authoritative information for the humanitarian agencies
3. The Committee was informed that SERCOM/SC-DRR/[Advisory Group on Tropical Cyclone \(AG-TC\)](#), looking after the global component of the TCP, has organized regular meetings since its establishment in October 2022. The fifth meeting of the AG-TC ([AG-TC-5](#)) was conducted from 12 to 14 December 2023. AG-TC addresses several important issues and recommendations on topics such as:
  - WMO WIPPS centers' compliance review.
  - WMO Coordination Mechanism (WCM) and the Weather4UN project.
  - Tropical Cyclone - Probabilistic Forecast Products (TC-PFP) Project.
  - NWP Requirements to the WIPPS Manual related on TC products
  - Recommendations by the International Workshop on Tropical Cyclones – 10th session (IWTC-10, 5-9 December 2022).
  - Tropical Cyclone Forecaster Competency.
  - Development of Tropical Cyclone Impact-based Forecasting products – Implementation Decision 10 (EC-68).
4. The Committee acknowledged with gratitude that numerous training activities on tropical cyclones were conducted in 2023. These initiatives aimed to enhance the capacity development of members, ensuring they acquire the necessary competency and skills for tropical cyclone forecasting and services, aligning with the regional tropical cyclone competencies.
5. The Committee received information indicating that regional activities related to tropical cyclone regional bodies were effectively organized in the previous year. These meetings served to update regional arrangements for addressing tropical cyclone situations, enhancing regional collaboration and coordination with unified approaches to managing tropical cyclones.
6. The Committee was briefed on the seamless implementation of all activities related to the Tropical Cyclone Programme (TCP) under the WMO Annual Operating Plan in 2023, without any delays. The Committee expressed sincere appreciation to the WMO Secretariat and Members for their commendable efforts in working closely together, facilitating the successful execution of TCP activities.



## **APPENDIX B**

### **COORDINATION UNDER WMO TROPICAL CYCLONE PROGRAMME**

#### **1. PROGRAMME IMPLEMENTATION**

1.1 The WMO Tropical Cyclone Programme carries out its activities in accordance with decisions/resolutions by Congress, Executive Council, Technical Commissions and Regional Associations as well as Research Board. It is implemented in two components – general component and regional one, and covers mainly four areas – meteorology, hydrology, disaster risk reduction and capacity development by research and training.

1.2 A list of the events organized or co-sponsored under the Programme during the period from March 2022 may be found the dedicated [TCP website](#) here.

#### **2. GLOBAL ACTIVITIES**

2.1 The Committee was informed of the following Resolutions and Decisions from WMO constituent bodies relevant to tropical cyclones:

##### **2.1.1. United Nations Early Warnings for All initiative (EW4All)**

[Resolution 4 \(Cg-19, 22 May- 2 June 2023\)](#) - **UN Early Warnings for All Initiative:** accelerating WMO's actions in support of EW4All – requesting the Executive Council (EC) and other constituent bodies to ensure EW4All is the highest priority in WMO Strategic Plan 2024-2027. Technical Commissions, Research Board, Hydrological Coordination Panel, etc: identify and implement high priority activities to address urgent needs Members to assess their MHEWS capacity, to document and share their national plan and expenditures, to develop their own initiatives and to utilize all forms of bilateral and multilateral cooperation.

[Resolution 1 \(EC-77, 5-6 June 2023\)](#) - **WMO Contribution to the Early Warnings for All initiative** - requests the Regional Associations, Technical Commissions and Research Board, under the guidance of the Executive Council, to consolidate all their relevant activities under the EW4All umbrella and report back to EC;

[Draft Document 4.5\(2\) \(SERCOM-3\)](#) - **SERCOM priority activities in support of the EW4All initiative** and the [INF 4.5\(2\)](#) - “**zero draft version**” of the wider **Implementation Plan for WMO contributions to EW4All initiative** – prioritization of activities in support of the EW4All initiative as indicated by Members, request SERCOM subsidiary bodies to focus on these activities.

##### **2.1.2. WMO Strategy for Service Delivery**

[Resolution 10 \(Cg-19\)](#) - **WMO Strategy for Service Delivery** - Encourages Members and their NMHSs to refer to the WMO Strategy for Service Delivery (WMO-No. 1129) to continue and/or expand their national strategies and efforts to improve and sustain value in Service Delivery.

##### **2.1.3. Tropical Cyclone Programme**

[Resolution 62 \(Cg-19\)](#) - Review of previous resolutions of Congress - **WMO Tropical Cyclone Programme** (Res 23/Cg-XVI) is maintained.

#### **2.1.4. Tropical Cyclone Forecasting Competency Framework**

[Resolution 2 \(EC-76\)](#) - **Tropical Cyclone Forecasting Competency Framework**. The five regional [Tropical Cyclone Forecaster Competencies](#), along with the consolidated one, to be added to the Compendium of WMO Competency Frameworks (WMO-No. 1209). The consolidated versions was finalized by the Advisory Group on Tropical Cyclones, approved by SC-DRR and submitted to [SERCOM-3 \(Draft Decision 4.5\(3\)\)](#).

#### **2.1.5. WMO Guide for NMHSs in support of national MHEW Services**

[Resolution 11 \(EC-76\)](#) - **WMO Guide for NMHSs in support of national MHEW Procedures, Coordination Mechanisms, Systems and Services - Guide No. 1 – Tropical Cyclones**. Promotes and supports WMO Members prone to tropical cyclones to develop/establish their effective national disaster risk management and response coordination mechanisms, protocols and procedures.

This task was tackled by SERCOM/SC-DRR **Expert Team – MHEWS Technical Guide (ET-MTG)**. It is published on the WMO e-library ([WMO Guide for National Meteorological and Hydrological Services in Support of National Multi-hazard Early Warning Systems, Procedures, Coordination Mechanisms and Services - Guide No. 1 – Tropical Cyclones - WMO-No. 1339](#)).

Furthermore, ET-MTG has developed an Implementation Plan.

#### **2.1.6. WMO Coordination Mechanism – authoritative information for the humanitarian agencies**

[Resolution 14 \(EC-76, February 2023\)](#) - **WMO Coordination Mechanism Implementation Plan**. Facilitates the access to meteorological, hydrological, climate information and data for UN & humanitarian agencies.

[Decision 3 \(EC-77\)](#) – **Resource Mobilisation Plan for the WCM** - Resource mobilization plan was noted and a trust fund to support the WCM activities was created. SG to, inter alia, develop and maintain linkages between NMHSs with the UN and other humanitarian agencies and allocate the necessary resources to manage the WCM. A [Circular letter](#) requesting in-kind and/or financial contributions to the WCM sent to Members in September 2023. In-kind and financial contributions confirmed from 6 Members but more support is needed.

2.2 The Committee was informed of the activities of the **Advisory Group on Tropical Cyclones**, SERCOM/SC-DRR subsidiary body, in charge of coordinating the global component of the TCP. The [Advisory Group on Tropical Cyclone](#) (AG-TC) has conducted its fifth meeting (AG-TC-5) from 12 to 14 December 2023. The AG-TC meetings addressed several important issues with recommendations, as follows:

- WMO WIPPS centers' compliance review. One center has been reviewed in 2023. The activity "Tropical Cyclone forecasting, including marine-related hazards" is planned to be fully reviewed by the end of 2025 in order to be submitted to INFCOM-4 (Q2 2026).
- Tropical Cyclone Forecaster Competency. As requested by EC-76 AG-TC consolidated the five regional Tropical Cyclone Forecasting competency frameworks into a single framework, to be added into the [Compendium of WMO Competency Frameworks](#). This is submitted to SERCOM-3.
- WMO Coordination Mechanism (WCM) and the Weather4UN project for Humanitarian Agencies.
- Tropical Cyclone - Probabilistic Forecast Products (TC-PFP) Project.

- NWP Requirements to the WIPPS Manual related on TC products (Doc.7.2, [SERCOM-3](#), 4-7 March 2024) to convey those requirements to INFCOM-3, April 2024).
- Moving forward the recommendations by the International Workshop on Tropical Cyclones – 10th session (IWTC-10, 5-9 December 2022).
  - Countries are encouraged to submit difficult TC cases for research purpose in the database located here (<https://severeweather.wmo.int/TCFW/>) via their RSMC.
  - AG-TC approved the organisation of the 4<sup>th</sup> session of the International Workshop on Satellite Analysis of Tropical Cyclones (IWSATC-4) which will be tentatively conducted online early December 2024
- Development of Tropical Cyclone Impact-based Forecasting products – Implementation Decision 10 (EC-68).

### **3. UPDATES ON ACTIVITIES in WMO SINCE TC-55**

#### **Training and Regional activities**

The TCP activities can be found here: <https://community.wmo.int/en/tropical-cyclone-programme-tcp-events-and-activities>

#### Tropical cyclone regional bodies session

3.1 The 55<sup>th</sup> session of the Typhoon Committee was organized online by Macao China, 7 – 9 March 2023, online.

3.2 The 45<sup>th</sup> session of RA IV Hurricane Committee was conducted in San Jose, Costa Rica, 27 – 31 March 2023. The 46<sup>th</sup> session is planned from 18 to 22 March 2024 in Panama City, Panama.

3.3 The 21<sup>st</sup> session of the RA V Tropical Cyclone Committee for the South Pacific and Southeast Indian Ocean was conducted in Nuku’Alofa, Tonga from 25 to 28 July 2023. It is planned to have the 22<sup>nd</sup> session in Q3 2024 (TBC).

3.4 The 25<sup>th</sup> session of the RA I Tropical Cyclone Committee for the Southwest Indian Ocean was conducted from 2 to 6 October 2023 in La Reunion, France.

3.5 The 50<sup>th</sup> session of the WMO/ESCAP Panel on Tropical Cyclones (PTC) was organized in Manama, Bahrain, from 20 to 23 December 2023. The PTC decided its Secretariat will be hosted by India. The 51st session of the PTC will be organized in Qatar in Q2 29024.

#### Training activities

3.6 RA IV Workshop on Hurricane Forecasting and Warnings. It was conducted last year from 27 February – 10 March 2023. This year, it is planned to be conducted from 8 to 12 April 2024. The design is to be changed. Selected participants will follow some specific courses as prerequisites during the 8 weeks before the workshop. The one-week fac-to-face workshop will be hands-on oriented.

3.7 The attachment training organized by RSMC New Delhi was successfully conducted online from 3 to 13 April 2023, with two days dedicated to storm surge and wave forecasting and monsoon. It was attended by 60 participants from PTC Members. The same attachment training will be also organized in Q2 2024.

3.8 The 11<sup>th</sup> session of the RA I Tropical Cyclone Workshop was organized at RSMC La Reunion, France, from 25 to 30 September 2023.

3.9 The [Fourth Miniforum on Tropical Cyclone Outlook in the South West Indian Ocean | World Meteorological Organization \(wmo.int\)](#), conducted online on 26 October 2023.

3.10 The attachment training by RSMC Tokyo was held this year from 15 to 26 January 2024.

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