

**ESCAP/WMO Typhoon Committee
Fifty-fifth Session of Typhoon Committee
7 to 9 March 2023
Video Conference
Macao, China**

FOR PARTICIPANTS ONLY
WRD/TC.55/9.1
7 February 2023
ENGLISH ONLY

REPORT ON TCS ACTIVITIES IN 2022

(Submitted by TCS)

ACTION REQUIRED:

The Committee is invited:

- a) To take note of the major TCS activities in 2022
- b) To advise the improvement of the functions carried out by the Secretariat
- c) To approve the recommendations of TCS for 2023

APPENDICES:

- 1) DRAFT TEXT FOR INCLUSION AT SESSION REPORT
- 2) TCS ACTIVITIES REPORT 2022

APPENDIX A:
DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT

9.1 Report of the Typhoon Committee Secretariat (agenda item 9.1)

9.1.1 The Committee took note of the report of the Typhoon Committee Secretariat.

9.1.2 The Committee noted with appreciation the TCS's activities 2022 in order to enhance coordination and support to Members and coordinate Working Groups activities.

9.1.3 The Committee noted with high appreciation that Macao Government for the strong support to TCS in the past years and cooperating to renew and implement the Agreement between the Government of the Macao Special Administrative Region of the People's Republic of China and the ESCAP/WMO Typhoon Committee regarding Administrative, Financial and Related Arrangements for the Typhoon Committee Secretariat.

9.1.4 The Committee expressed appreciation to Members for their donation for the Typhoon Committee Trust Fund and in-kind contributions and encourage Members to continue support activities of the Committee.

9.1.5 The Committee dealt with related issues under the relevant agenda items.

9.1.6 The Committee approved the recommendations submitted by TCS as expressed in paragraph X.X.

(Additional text to be added in the light of discussion on this item)

APPENDIX B: TCS ACTIVITIES REPORT 2022

1. Introduction

In 2022, TCS, overcoming the impact of the COVID-19, made great efforts on maintaining the Committee mechanism running properly for fulfilling the decisions of 54th Session of the Committee with the strong support and kind cooperation from all Members, TC Chairs, AWG, each Working Groups, ESCAP and WMO. TCS endeavored to carry out its functions successfully.

2. Execution of the Decisions of the Committee

TCS coordinated and supported AWG, WG's and Members for implementing the decisions of 54th Session of the Committee.

As the request of the Committee, TCS has made the arrangements for the logistics on the signing of the Draft Agreement and Pilot-Project on Technical Cooperation and Research Activities between TC and the AP-TCRC.

3. Coordination and Participation in the Activities of Annual Operation Plan Implementation

- **WGM**

- Coordinated the following activities in 2022:
 - (1) The implementation of 4 POPs, 9 AOPs and 2 PPs of WGM.
 - (2) The hosting of the 54th TC Annual Session which was held online from 23 to 25 February 2022.
 - (3) The hosting of the 5th Annual Meeting of WGM which was held online on 13 October 2022.
 - (4) The hosting of the 17th Integrated Workshop which was held online from 29 to 30 November 2022.
- Participated in the following meetings in 2022:
 - (1) Video conference of TC 54th Annual Session.
 - (2) Video conference of TC 17th Integrated Workshop and WGM Parallel Session.
- Drafted reports for the 5th Annual Meeting of WGM, working documents of WGM component for the 54th TC Annual Session and the 17th Integrated Workshop.

- **WGH**

- Coordinated the following events and activities:
 - (1) Hosting of TC 54th annual session which were held online from 23 to 25 February 2022.
 - (2) The implementation of all 7 on-going AOPs of WGH in 2022.

- (3) Hosting of WGH 11th working meeting which was held on 18-19 October 2022.
- (4) The Training Course on Hydrological Monitoring and Flood Management for Developing Countries hosted by Nanjing Research Institute of Hydrology and Water Conservation Automation (NIHWA), the Ministry of Water Resources (MWR), China from 26 October to 8 November 2022, which is an annual training programme for developing countries covering most TC and PTC Members, and officially launched at TC 55th Session as WGH AOP8.
- (5) Hosting of TC 17th Integrated Workshop which was held virtually from 29 to 30 November 2022.
- (6) Proposals of the cooperation projects for WGH AOPs.
- (7) The publication of the technical report of TC WGH AOP5—“RCCC-WBM Model and its Application for Impact Assessment of Climate Change on Water Resource Variability” (TC/TD No. 0023).
- Participated in the following meetings in 2022 virtually:
 - (1) TC AWG on-line meetings.
 - (2) WGH 11th working meeting which was held on 18-19 October 2022.
 - (3) 17th Integrated Workshop which was held virtually from 29 to 30 November 2022.
 - (4) video meeting of WGH AOP2 “Application of Hydrological Data Quality Control System in TC Members” which was organized by Republic of Korea on 18 November 2022.
- Issued two articles on Tropical Cyclone Research and Review (TCRR):
 - (1) Jixin YU, Jinping LIU, Ji-Won Baek, Clarence Fong, Michael Fu. Impact-based forecasting for improving the capacity of typhoon-related disaster risk reduction in typhoon committee region. Tropical Cyclone Research and Review 11 (2022) 163–173.
 - (2) Jinping LIU, Hyo-Seob CHO, Sazali OSMAN, Hyeon-Gyo JEONG, Kwonmin LEE. Review of The Status of Urban Flood Monitoring and Forecasting in TC Region. Tropical Cyclone Research and Review 11 (2022) 103–119
- Drafted working documents and reports for WGH 11th working meeting, TC 17th IWS and 55th Session.

- **WGDRR**

- Coordinated all the activities and implementation of the WGDRR AOPs and budget in 2022.
- Coordinated the implementation of AOPs of WGDRR in 2022.
- Participated in and coordinated the hosting of the WGDRR Virtual meeting which was held on October 21, 2022.
- Participated in and coordinated the 17th IWS virtual meeting on November 29-30, 2022. Proposal and Budget of the AOPs 2023 was made.
- Coordinated the production of the DRR video and uploaded to TC website for sharing with the TC members on disaster preparedness education.

- Drafted the report for TC 17th IWS and 55th Session.
- **TRCG**
 - The Workshop on Typhoon Forecasting Techniques was hosted by the Malaysian Meteorological Department (MET Malaysia) in a hybrid mode (physical and online) in collaboration with TRCG and WGM. The Workshop was conducted from 11 to 13 October 2022 and there were 24 participants (19 physical and 5 online).
 - CMA's Typhoon Forecaster Training Programme, namely the Seventh International Distance Training Course on Tropical Cyclone Monitoring and Forecasting, was conducted online from 24 October to 4 November 2022. A total of 172 participants from 48 countries and regions joined the Programme, including 21 trainees from TC.
 - The RSMC Forecaster's Training Attachment for 2022 was successfully conducted online from 11 to 13 January 2023. There were 51 participants.
 - Hong Kong, China offered a research fellowship on the topic entitled "Study on the characteristics and model forecast performance of rapid intensification (RI) of near-landfall tropical cyclones" via a remote approach.

4. The Agreement arrangements between TCS and Macao Government

Under the coordinate and support of the TC Chair and the Macao Meteorological and Geophysical Bureau, the "Agreement between the Government of the Macao Special Administrative Region of the People's Republic of China and the ESCAP/WMO Typhoon Committee Regarding Administrative, Financial and Related Arrangements for the Typhoon Committee Secretariat" has been updated.

5. Other Issue

- **Assisting KMA in its International Internship Programme**
 - Following request from Korea Meteorological Administration (KMA), TCS accepted 6 young students in total from republic of Korea as TCS interns, derided into two groups. Due to the impact of COVID-19 pandemic, their internship was conducted via teleworks.
 - (1) Ms. Hyunjung RYU, Ms. Soyeon AN and Mr. Hyundae KIM completed their internship from 1 March to 31 August 2022. TCS meteorologist hydrologist and DRR expert were appointed as their supervisors, respectively.
 - (2) Ms. Dahyeon GO, Ms. Jeonghye LEE and Ms. Soyoun GWAK their internship from 1 September 2022 to 28 February 2023. TCS meteorologist, hydrologist and DRR expert were appointed as their supervisors, respectively.

6. Recommendations

Based on the experience of routine operation in 2022 and in the past years, and considering needs and possibility, TCS made the following recommendations to TC 55th Session for consideration:

- To allocate US\$29,000 from TCTF for supporting overall TCS activities; US\$3,000 for supporting IWS hosting in 2023 and US\$2000 for IWS related activities.
- To express appreciations to Members for their donation for the Typhoon Committee Trust Fund and in-kind contributions, encourage Members to continue support activities of the Committee.
- To thank Macao Government for supporting of TCS in the past years, and for cooperating to renew and implement the Agreement between the Government of the Macao Special Administrative Region of the People's Republic of China and the ESCAP/WMO Typhoon Committee regarding Administrative, Financial and Related Arrangements for the Typhoon Committee Secretariat.