**APPENDIX XIV**

**TCS ACTIVITIES REPORT 2021**

**1. Introduction**

In 2021, TCS made the efforts on overcoming the influence of covid-19 and maintaining the Committee mechanism running properly for fulfilling the decisions of 53rd Session of the Committee. With the strong support and kind cooperation from all Members, TC Chairs, AWG, 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 53rd Session of the Committee.

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

* **WGM**
* Coordinated all activities for implementation of 5 POPs, 9 AOPs and 2 PPs of WGM in 2021.
* Coordinated the hosting of 4th annual meeting of WGM (October 2021).

1. Participated in the following meetings in 2021:
2. Video conference of TC 53rd Annual Session (February 2021).
3. Video conference of TC 16th IWS and WGM Parallel Session (December 2021).

* Drafted reports for 4th annual meeting of WGM, and documents of WGM component for TC 16th IWS and TC 54th Session.
* **WGH**
* Coordinated the hosting of TC 53rd annual session which were held online from 23 to 25 February 2021.
* Coordinated all activities for implementation of all 7 AOPs of WGH in 2021.
* Coordinated the hosting of WGH 10th working meeting which was held on 22 October 2021.
* Coordinated the hosting of TC 16th Integrated Workshop which was held virtually from 2 to 3 December 2021.
* Participated in the following meetings in 2021 virtually:

1. TC AWG on-line meetings.
2. IWHR (China Institute of Water Resources and Hydropower Research) on-line/off-line Seminar Series on Geo-Frontiers which was by China on 27 September 2021.
3. video meeting of WGH AOP2 “Application of Hydrological Data Quality Control System in TC Members” and AOP3 “Enhancement of Flood Forecasting Reliability with Radar Rainfall Data and Stochastic Technique” seminar which was organized by Republic of Korea on 18 November 2021.
4. China 5th Think-tank Conference on Flood Disaster Risk Reduction which held on-line/off-line in Guangzhou, China on 27 November 2021.
5. China 5th International Forum on Urban Flood Control and Drainage Capacity which was held off-line/on-line on 9 to 10 December 2021 in Shanghai, China. A presentation was delivered with the title of “Briefing Urban Flood Situation and Its Monitoring, Forecasting and Warning in Asia-Pacific Region”.
6. Training workshop of WGH AOP5 “Impact Assessment of Climate Change on Water Resource Variability in TC Members” which was organized by China on 15 December 2021, with more than 60 participants.

* Coordinated the special issue on the Typhoon Commission Journal “Tropical Cyclone Research and Review (TCRR) (Vol. 10, No.2, June 2021)” for WGH AOP 4 “OSUFFIM Phase-II: Extension of OSUFFIM (Development Operational System for Urban Flood Forecasting and Inundation Mapping)” collected 5 articles.
* Issued two articles on TCRR:

1. Jixin YU, Jinping LIU, Youngkwang CHOI. Review and Prospects of Strategies and Measures for Typhoon-Related Disaster Risk Reduction under Public Emergencies in TC Region. Vol. 10, No.2, June 2021.
2. Jixin YU, Jinping LIU, Lisa KOU. Review of the Achievement SSOP and its Inspiration for Future Regional Cooperation. Vol. 10, No. 4, December 2021.

* Drafted working documents and reports for WGH 10th working meeting and TC 16th IWS and 53rd Session.
* **WGDRR**
* Coordinated all the activities and implementation of the WGDRR AOPs and budget in 2021.
* Coordinated the implementation of AOPs of WGDRR in 2021
* Participated in and coordinated the hosting of the WGDRR Virtual meeting which was held on 5 November 2021.
* Participated in and coordinated the 16th IWS virtual meeting on 2 -3 December 2021. Proposal and Budget of the AOPs 2022 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 16th IWS and 54th Session
* **TRCG**
* The RSMC Forecaster’s Training Attachment for 2020 was successfully conducted online from 9 to 11 March 2011. International participants from Hong Kong, China, Macao, China, Malaysia, the Philippines, Republic of Korea, Singapore and Thailand attended the training. In view of the persisting COVID-19 pandemic, RSMC Tokyo continued to organize the Attachment Training for 2021 remotely from 11 to 13 January 2022.
* CMA’s Typhoon Forecaster Training Programme, namely the Sixth International Distance Training Course on Tropical Cyclone Monitoring and Forecasting, was conducted online from 25 November to 3 December 2021 due to COVID-19 pandemic.
* Hong Kong, China has offered a research fellowship on the topic “Verification of tropical cyclone wind structure forecasts from global NWP models and ensemble prediction system” via a remote approach to discuss and implement the research studies.
* With reference to TC53, the Joint Task Team (JTT) of the Asia-Pacific Typhoon Collaborative Research Centre (AP-TCRC) was established to develop a draft agreement on the technical cooperation between TC and AP-TCRC, as well as a pilot project under TRCG in line with the considerations expressed in paragraph 104 of the TC53 final report.

**4. Other Issues**

* **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. Mr. KIM Gitae, Ms. LEE Kwonmin and Ms. YONG Kyeonbin completed their internship from 1 March 2021 to 31 August 2021. TCS meteorologist hydrologist and DRR expert were appointed as their supervisors, respectively.
2. Ms. Yula LIM, Ms. Jiwon BAEK and Mr. Myounghwan LIM completed their internship from 1 September 2021 to 28 February 2022. TCS meteorologist, hydrologist and DRR expert were appointed as their supervisors, respectively.

**5. Recommendations**

Based on the experience of routine operation in 2021 and in the past years, and considering needs and possibility, TCS made the following recommendations to TC 54th Session for consideration:

* To allocate US$20,000 from TCTF for supporting overall TCS activities; US$3,000 for supporting 17th IWS hosting in 2022 and US$2,000 for IWS-related activities. A special budget for Publication of Strategic Plan 2022-2026 is US$2,000.
* 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 strong support of TCS in the past years.