# **APPENDIX IV**

# **APPENDIX A:**

10.1 Report of the Typhoon Committee Secretariat (agenda item 10.1)

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

10.1.2 The Committee noted with appreciation the TCS’s activities 2019 in order to enhance coordination and support to Members, implement SSOP II project, improve the TC website and coordinate Working Groups activities.

10.1.3 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.

10.1.4 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.

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

10.1.6 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 2019**

**1. Introduction**

In 2019, TCS made great efforts on maintaining the Committee mechanism running properly for fulfilling the decisions of 51st 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 51st Session of the Committee.

* Request TCS and AWG to develop a final proposal to include the procedures for the new Membership for the approval at the 52nd Session.

TCS and AWG has drafted the proposal for the new Membership for the approval at the Session (Document 12).

* Request TCS to invite interested Members to explore the feasibility of developing a coordination mechanism, with the support from their air traffic authorities, to facilitate the operation of reconnaissance flights into tropical cyclones across multiple Flight Information Regions (FIRs) and sharing of the resulting meteorological data.

In the 51st Session of the Committee, Hong Kong, China proposed to explore the feasibility of developing a coordination mechanism, with the support from their air traffic authorities, to facilitate the operation of reconnaissance flights into tropical cyclones across multiple Flight Information Regions (FIRs) and sharing of the resulting meteorological data. It was decided that TCS would invite interested Members to start the discussion but TCS was informed by Hong Kong, China in August 2019 that they would need more time to resolve issues with the local Government before proceeding.

* Kintanar Award

Dr. Roman L. KINTANAR award 2019 for Typhoon-related disaster mitigation is to XXX(TBD) in recognition of their outstanding contribution towards tropical cyclone forecasting and excellent weather service for natural disaster prevention and damage mitigation in 2019.

* SSOP Project phase II

TCS made efforts to support and coordinate the Project Manager, Members of TC/PTC and ESCAP on implementation of SSOP Phase II.

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

* **WGM**
  + The second WGM annual meeting was successfully held in Tokyo, Japan between 7-9 October 2019 with 11 Members. The meeting reviewed and discussed significant TC events, recent improvements in data and product sharing and analysis techniques, enhanced cooperation between research and operational fields, and also annual priority plans of WGM in 2019.
  + The 14th Integrated Workshop (IWS) was held in Guam, USA from 4 to 7 November 2019. During the parallel sessions WGM Members presented the Members Reports and Progress Reports of the 5 AOPs, 8 POPs and 2 PPs. New plans for 2020 were also introduced and discussed.
  + Technical Meeting on regional radar network was organized by Japan and the Meeting was held in Tokyo, Japan from 13 to 15 November 2019, with participants from Malaysia, Philippines, Thailand and Viet Nam.
  + Attachment Training on Radar Integrated Nowcasting System (RaINS) was organized by Malaysia and it was held in Kuala Lumpur, Malaysia from 17 to 27 September. Mr. Wong Wai-kin from Hong Kong Observatory, Hong Kong, China was invited as speaker. 2 experts from China and Thailand attended the Training.
* **WGH**
  + Coordinated all activities for implementation of all 7 AOPs of WGH in 2019.
  + Coordinated the hosting of WGH working meeting.
  + Participated in and coordinated 7 hydrology-related workshops, meetings and expert missions up to TC 52nd Session, including: (1) TC 51st annual session held in Guangzhou, China from 26 February to 1 March 2019; (2) Informatization Forum on Flood Control and Drought Relief in Changsha, China from 9 to 10 April 2019; (3) First expert mission for AOP2 and AOP3 in Malaysia and Lao PDR from 29 April to 3 May 2019; (4) EAS Workshop on Estuary Harnessing, Protection and Management in Guangzhou, China from 26 to 30 August 2019; (5) WGH 8th working meeting held in Seoul, the Republic of Korea from 15 to 18 October 2019; (6) WGH parallel session of TC 14th IWS held in Guam, USA from 4 to 7 November 2019; (7) Second expert mission for AOP2 and AOP3 in Philippines and Thailand from 24 to 30 November 2019.
  + Drafted reports for WGH 8th working meeting, and documents related to hydrological component for TC 14th IWS and 52nd Session.
* **WGDRR**
  + Coordination of WGDRR Expert Mission -The project of Expert Mission is aimed at improving Members’ Capacities of DRR especially related to typhoon disaster by information and expertise exchange among TC Member. Following the decision at TC51, as WGDRR had planned to conduct the expert mission in Macao, China or Thailand in 2019, TCS contacted the relevant focal points and sent them the information such as proposed date and tentative programme of the Mission after TC51 in order to coordinate the implementation of project. However, the project was not successfully implemented as both of Macao, China and Thailand finally informed that they could not to join the project in 2019.
  + Coordination of and participation in the 14th WGDRR Annual Meeting-The 14th WGDRR Annual Meeting was successfully held with the theme of “Disseminating and Sharing of Data on Disaster Risk Reduction” on 18-20 June 2019 in Ulsan, Republic of Korea, which was fully supported and funded by NDMI, ROK. TCS coordinated with AWG and DRR Member for the attendance of the meeting and worked with NDMI for organizing the meeting smoothly. Meanwhile, with NDMI kind invitation, TCS members were invited to take part in the meeting.
  + Coordination of and participation in the World Bosai Forum (WBF)- According to the decision at TC51, The Committee participated in the WBF that was held in Sendai, Japan by holding an Oral Session in order to share typhoon related DRR and introduce TC. For implementation of this project, TCS coordinated between TC Members including Chairs of WG and DRR Members and the Secretariat of WBF. As a result, the TC oral session in the WBF was successfully held on 11 November 2019 with 6 participants from TC Member including the Secretary of TCS.
  + Coordination of the Research Fellowship for Benefit Evaluation of Typhoon Disaster Prevention and Preparedness Project- TCS coordinated the fellowship such as the date and logistic arrangement between STI, China and the participating Members (Lao PDR and Vietnam). The fellowship was successfully held in October 2019.
  + Promoting TC and PTC Cooperation-In order to promote the cooperation between TC and PTC, WGDRR planned to invite Oman, the PTC member to attend 14th WGDRR annual meeting for approach to PTC. TCS tried to contact Oman by emails to coordinate their attendance of the meeting. However, there was no response from Oman due to the difficulty to access the communication with PTC Member.
  + Sharing information related to DRR on TC Forum- TCS established a Forum on TC website with a preset username and password to each Member in order to facilitate DRR Members sharing DRR information such as policies, expertise and law on the platform.
  + Producing video related DRR for public education- TCS coordinate with Hong Kong Observatory (HKO) to produce the DRR related video that will be used for public education among Members. TCS had provided the comments for selection of the video and posted it on TC website for Member to download after completion of the translation of the video into English.
* **TRCG**
  + Roving Seminar

The Typhoon Committee Roving Seminar 2019 was successfully held from 11 to 13 November 2019 in Beijing, China. The seminar was kindly hosted by the China Meteorological Administration (CMA). The theme of this Seminar is “Quantitative Precipitation Estimation and Forecasting (QPE/QPF). 34 participants from 11 countries and regions attended the Seminar.

* + Forecasters’ Training Attachment

The RSMC-Tokyo Attachment Training in 2019 was held at JMA Headquarters from 18 to 29 November 2019. Seven forecasters from China, Hong Kong, China, Lao PDR, Macao, China, Malaysia, Thailand and Viet Nam of the Typhoon Committee attended the training.

* + To promote the Typhoon Committee’s regional cooperation and enhance Members’ typhoon monitoring and early warning capability, the China Meteorological Administration organized the Typhoon Forecaster Training Programme from 11 to 21 Novermber 2019, in conjunction with the Roving Seminar 2019. Eight trainees including four from Hong Kong, China, Thailand and Viet Nam and four from the Panel on Tropical Cyclone attended the training.
  + Research Fellowship Scheme

The Research Fellowships are awarded to Members to promote joint research through the exchange of visiting scientists on a short-term basis with voluntary funding and logistic support by host Members. In 2019, fellowships were offered by China, Hong Kong, China and Republic of Korea. Details of which can be found in the TRCG Annual Report.

* **Participating in the 75th session of ESCAP**

75th Session of the Economic and Social Commission for Asia and the Pacific was held in Bangkok from 27-31 May 2019. Mr. YU Jixin, on behalf Typhoon Committee Secretariat, attended the Session, and made a statement. He reported the session of the mean activities and achievements of the Committee in last year and expressed appreciation for their support on SSOP project.

**4. The internal capacity building of TCS**

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 Issues**

* **Visit to TCS of Mr. Kaveh Zahedi, Deputy Executive Secretary of ESCAP**

Mr. Kaveh Zahedi, Deputy Executive Secretary of ESCAP visited TCS in 27 June 2019. He expressed that ESCAP would further strengthen cooperation with Typhoon Committee to reduce the loss of lives and minimize social, economic, and environmental impacts by typhoon-related disasters.

* **Assisting KMA in its International Internship Programme**

Following request from Korea Meteorological Administration (KMA), TCS accepted the interns, Ms. Jeong Suyeon and Ms. Cho Suwan working in TCS. TCS DRR expert and Meteorologist were appointed as supervisors of the interns.

**6. Recommendations**

Based on the experience of routine operation in 2019 and in the past years, and considering needs and possibility, TCS made the following recommendations to TC 52nd Session for consideration:

Based on the experience of routine operation in 2019 and in the past years, and considering needs and possibility, TCS made the following recommendations to TC 52nd Session for consideration:

* To allocate US$29,000 from TCTF for supporting overall TCS activities; US$3,000 for supporting IWS hosting in 2020 and US$2000 for IWS related activities and special budget of US$10,000 for TCS staff to attend the TC52 session which will be postponed due to novel coronavirus outbreak.
* 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, 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.
* To thank Project Manager Mr. TOM Evans, Members of TC/PTC related for their efforts and cooperation on implementation SSOP II project.