ESCAP/WMO Typhoon Committee Fifty-first Session 26 February to 1 March 2019 Guangzhou, Guangdong China

FOR PARTICIPANTS ONLY WRD/TC.51/10.1 21 February 2019 ENGLISH ONLY

REPORT ON TCS ACTIVITIES IN 2018

(Submitted by TCS)

ACTION REQUIRED:

The Committee is invited:

- a) To take note of the major TCS activities in 2018
- b) To advise the improvement of the functions carried out by the Secretariat
- c) To approve the recommendations of TCS for 2019

APPENDICES: 1) DRAFT TEXT FOR INCLUSION AT SESSION REPORT 2) TCS ACTIVITIES REPORT 2018

APPENDIX A:

DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT

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

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 2018 in order to enhance coordination and support to Members, improve the cooperative mechanism between TC and PTC, implement SSOP II project, increase the visibility of Typhoon Committee via the social media, improve the TC website for sharing the forecast products and information, coordinate Working Groups activities, and keep TCS operation smoothly when Typhoon Mangkhut hit Macao, China and the office was damaged.

10.1.3 The Committee noted with high appreciation that Macao Government for the strong support to TCS in the past years, and for continuing hosting TCS for the 4th term from 2019 to 2022, 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.

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 noted with appreciation Mr. Tom Evans, Project Manager of SSOP II and Members related for their efforts on implementation of SSOP phase II to benefit more Members of the TC and PTC.

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

10.1.7 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 2018

1. Introduction

In 2018, under the supervision of TC Chair and the AWG of the Committee, the Typhoon Committee Secretariat (TCS) made great efforts on maintaining the Committee mechanism running properly for fulfilling the decisions of 50th Session of the Committee which was held in Hanoi, Viet Nam, from 28 February to 3 March 2018. With the strong support and kind cooperation from all Members, Working Groups, ESCAP and WMO, TCS endeavored to carry out its functions successfully in 2018 as the executive body of the Committee.

2. Execution of the Decisions of the Committee

TCS coordinated and supported WG's and Members for implementing the decisions of $50^{\rm th}$ Session of the Committee.

- To identify procedures to document how to accept new Members TCS assisted AWG to coordinate with ESCAP and WMO on identifying procedures to document how to accept new Members
- Replacement names of tropical cyclones in accordance with the Committee's procedure TCS approved the names MULAN, TRASES, HINNAMNOR and NYATOH as replacement names for HAIMA, SARIKA, NOCK-TEN and MERANTI. In addition, TCS approved the retirement of the names TEMBIN, HATO and KAI-TAK, and the replacement names will be discussed in the 51st Session.
- Kintanar Award

Dr. Roman L. KINTANAR award 2018 for Typhoon-related disaster mitigation is to Guangdong Meteorological Service of China Meteorological Administration (CMA) China. In recognition of their outstanding contribution towards tropical cyclone forecasting and excellent weather service for natural disaster prevention and damage mitigation in 2018.

• SSOP Project phase II TCS made great 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 first meeting of Working Group on Meteorology (WGM) was successfully held in Shanghai on July 9, 2018. 18 experts from 8 Members including China, Hong Kong, Macao, Japan, Lao PDR, Malaysia, Republic of Korea and Thailand attended the meeting. Review of the progress of the working group in the past 10 years was reported by Dr. Lei Xiaotu, Chair of WGM. Annual operating plans and proposal for new plans were also discussed in the meeting.
 - The 13th Integrated Workshop (IWS) was held in Chiang Mai, Thailand from 5 to 9 November 2018. During the parallel sessions WGM Members presented the Members

Reports and Progress Reports of the AOPs, POPs and PPs. New plans for 2019 were also introduced and discussed.

- Technology Transfer of Typhoon Operation System (TOS), previously known as Typhoon Analysis and Prediction System (TAPS) was conducted by Republic of Korea for Lao PDR and Thailand this year. KMA experts visited DMH of Lao PDR from 8 to 10 October 2018 and TMD of Thailand from 11 to 12 October 2018 to provide training and support which included installation of TOS, typhoon forecasting procedure of TOS, manager and user education and emergency response.
- Technical Meeting on regional radar network was held in Tokyo, Japan from 22 to 26 October 2018, with participants from Lao PDR, Malaysia, Thailand and Viet Nam. Technical Meeting on utilization of Himawari-8/9 products was also held in Tokyo, Japan from 22 to 25 October 2018 with participants from Malaysia. During each of the meetings, progress of the project as well as new collaborations were discussed among the experts.

• WGH

- Coordinated all activities for implementation of all 5 AOPs of WGH in 2018.
- Coordinated the issue of Chairmanship of WGH, which has been reached consensus in WGH based on the full communication with Members and the deep discussion at WGH 7th working meeting and TC 13th IWS.
- Participated in and coordinated 6 hydrology-related meetings up to TC 51st Session, including: (1) TC 50th annual session held in Hanoi, Vietnam from 28 February to 3 March 2018; (2) WGH 7th working meeting held in Tokyo, Japan from 9 to 11 October 2018; (3) WGH parallel session of TC 13th IWS held in Chiang Mai, Thailand from 5 to 9 November 2018; (4) the Think-Tank workshop of Water-related Disaster Risk Reduction of China held in Zhuhai, China from 7 to 9 December 2018; (5) The Meeting on Platform on Water Resilience and Disasters under the International Flood Initiative (IFI) with TC WGH in Manila, Philippines from 6 to 7 February 2019; and (6) Seminar on Big-data Application in Water-related Disaster Risk Reduction in Fuzhou, China from 23 to 24 February 2019.
- Drafted reports for WGH working meeting, and documents related to hydrological component for TC 13th IWS and 51st Session.

• WGDRR

- Coordination of the Research Fellowship in STI, China Following the decision at TC50, TCS coordinated the Benefit Evaluation of Typhoon Disaster Prevention and Preparedness Project between the participating member and STI, China thus successfully holding the Research fellowship. This was conducted in STI, China from 02 May to 01 Jun 2018.
- Participation in 13th WGDRR Annual Meeting The 13th WGDRR Annual Meeting has been successfully held with the theme of "Public Understanding of Science on Disaster Risk Reduction from Desk to Field" from 29 to 31 May 2018 in Ulsan, Republic of Korea, which was fully supported and funded by NDMI, Republic of Korea. TCS coordinated with the Member for the participation

(Including WGDRR and AWG Member) and coordinated with NDMI for organizing the meeting. Meanwhile, with NDMI's kind invitation, all members of TCS attended the meeting.

- Coordination in WGDRR Expert Mission

Following the decision at the TC50, the WGDRR Expert Mission originally was planned to be conducted in Macau in 2018. TCS coordinated with Macau and NDMI for organizing the Mission such as drafting the proposed programme and agenda, as well as the date for Mission. However, The Expert Mission was not successfully conducted.

- Coordination iCowin Project

For implementation of the iCowin project (WGDRR AOP3) that aims to raise public awareness on climate change and extreme weather by setting up community weather stations among TC Members, HKO conducted a training workshop for TC Members. TCS coordinated between the interested Members and HKO for the training workshop. As a result, the workshop has been successful held in HKO from 05 to 07 November in 2018.

- PRIMO Conference

According to the decision at the TC50, WGDRR organized the Members to take part in the PRIMO DRR Conference that was held in August in Honolulu, USA in order to improve the capacities of disaster management among TC Member. TCS coordinated with the interested Members for their participation with holding a TC forum. As a result, there were 10 participants to successfully attend the Conference from TC Members namely China, Republic of Korea, Japan and Vietnam sharing their expertise and information related to DRR. Meanwhile, a TCS member also joined the Conference and took the chance to introduce Typhoon Committee to the conference's participants.

- Coordination 13th IWs

TCS coordinated with Thailand, the LOC of 13th IWS for the Member's attendance, especially for the parallel meeting arrangement such as the elaboration of the programme and agenda that aimed to follow up on the Projects' Progress and the Member Report in 2018, as well as discuss the projects and budget in 2019.

• TRCG

- Roving Seminar

A new Roving Seminar webpage has been set up in the Typhoon Committee website in 2018. The Roving Seminar webpage collects reports, photos and presentation material of past roving seminars (since 2006) for future reference and knowledge sharing. In addition, the Typhoon Committee Roving Seminar 2018 was successfully held on 20-22 November 2018 in Singapore. The seminar was kindly hosted by the Meteorological Service Singapore. The theme of this seminar is on "Application of Remote Sensing Technologies.

- Technical Conference

To celebrate the 50th anniversary of the Typhoon Committee in 2018, Typhoon Committee organized a Technical Conference (TECO) in conjunction with the 50th Session of the Typhoon Committee (TC50) in Viet Nam in 2018. With the kind support of Viet Nam Meteorological and Hydrological Administration, the TECO was successfully held on 26-27 February 2018 in Ha Noi, Viet Nam. The TECO was

attended by over 70 participants, including keynote speakers, experts from Typhoon Committee Members and WMO Members. The main theme of the TECO was "Embracing new technologies and knowledge to meet the challenges in the new era of tropical cyclone forecasting".

- Forecasters' Training Attachment

The RSMC-Tokyo Attachment Training in 2018 was held at JMA Headquarters from 15 to 26 October 2018. Three forecasters from Macao, China; Malaysia and the Philippines of the Typhoon Committee as well as two forecasters in the Panel on Tropical Cyclone 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 on 10-19 December 2019. Seven trainees including five from Thailand, Viet Nam, Malaysia, and Lao PDR of the Typhoon Committee and two 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 2018, 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 74th session of ESCAP

74th Session of the Economic and Social Commission for Asia and the Pacific was held in Bangkok from 11-16 May 2018. _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 past 50 years 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 ESCAP Evaluator

Dr. F A Uriarte, Jr., as the evaluator of ESCAP, visited TCS office in 19 November 2018, where conversations were taken about the current status and the future cooperation between ESCAP, WMO, TC and PTC, mainly in what refers ESCAP and WMO partnership for supporting regional platforms on tropical cyclones therefore needs to reflect global and regional developments through multi-hazard approaches.

• 50th anniversary photography competition

Under support of Members and AWG, TCS organized 50th anniversary photography competition successfully.

• Assisting KMA in its International Internship Programme

Following request from Korea Meteorological Administration (KMA), TCS accepted two interns working in TCS. TCS Meteorologist and DRR expert were appointed as supervisor of the interns.

6. Recommendations

Based on the experience of routine operation in 2018 and in the past years, and considering needs and possibility, TCS made the following recommendations to TC 51st Session for consideration:

- To allocate US\$29,000 from TCTF for supporting overall TCS activities; US\$3,000 for supporting IWS hosting in 2019 and US\$2000 for IWS related activities; and special budget of USD5,000 for Publication of Session Report
- 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.