**APPENDIX III**

**Report on TC's Key Activities and Main Events in the Region, 2019**

In 2019, the Typhoon Committee successfully achieved its mission to integrate and enhance regional activities of Members within international frameworks to reduce the loss of lives and minimize social, economic, and environmental impacts by typhoon-related disasters. With the contribution, cooperation and support from all TC Members, AWG, working groups, and TCS, the Committee has implemented the decisions of 51st Session of the Committee. The related issues will be dealt with under the relevant agenda items. Some key activities and events are as follows.

1. **Chairperson’s Activities on behalf of the Committee**
   1. The chairperson attended the High-level Dialogues on Tropical Cyclones: A 10-year Vision to Protect Life and Property from 10 to 11 October 2019, as part of the celebration of 30th anniversary of RSMC Tokyo-Typhoon Centre and made an opening remark on behalf of the Committee. He congratulated the 30th birthday of RSMC-Tokyo, and appreciated RSMC Tokyo-Typhoon Centre’s efforts in fulfilling its duties as a regional centre and playing an important role in Typhoon Committee to realize collective efforts in the region. He expressed hopes that all Members work together to provide better service and support for the socio-economic development and people's safety and well-being in this region.
   2. The chairperson appreciated the preparation of the Third Assessment Report on Impacts of Climate Change on Tropical Cyclones in the Typhoon Committee Region (TCAR3). He encouraged the TCS to publish it at an early stage, in order to deepen our understanding of typhoon in a changing climate and improve the long-term typhoon resilience strategy, and contribute to the sixth assessment cycle of the Intergovernmental Panel on Climate Change (IPCC). The chairperson expressed his sincere gratitude and respect to all the members in the assessment expert team for their outstanding, hard and voluntary work.
   3. The chairperson issued the certificates to participants in the TC Roving Seminar 2019 and the 4th Typhoon International Training Programme on Typhoon Monitoring and Forecasting hosted by China Meteorological Administration (CMA) respectively from 11-13 November 2019 and 11-21 November 2019. He acknowledged the consecutive contribution made by CMA in capacity building by hosting this training in the past 4 years and encouraged CMA to continue this effort in the future.
2. **Typhoons in the Region**
   1. In 2019, 29 named tropical cyclones of tropical storm intensity or above were formed over the western North Pacific and the South China Sea. This number was above the climatological average of 25.6.
   2. There were 5 tropical cyclones which made landfall over China in the year, namely Mun (1904), Wipha (1907), Lekima (1909), Bailu (1911) and Mitag (1918). Among the 5 tropical cyclones, Lekima was the strongest one making landfall over China in the year. 71 people were dead, 2.1 million were evacuated and the typhoon caused a direct economic loss of more than 50 billion Chinese Yuan.
   3. Japan was hit by 5 tropical cyclones in 2019, namely Nari (1906), Francisco (1908), Krosa (1910), Faxai (1915) and Hagibis (1919). Hagibis made landfall on Shizuoka Prefecture and brought recording-breaking rainfall to eastern and northern Japan. More than 70 levee breaks were reported in big and small rivers. In addition, over 90 people were dead and the direct economic loss reached 32 billion Japanese Dollars.
   4. Republic of Korea was affected by 7 tropical cyclones in the year, and 3 of them, Danas (1905), Francisco (1908) and Mitag (1918), made landfall over the country. Heavy rain was observed during the passage of Mitag and the accumulated rainfall exceeded 550 millimetres in Uljin city.
   5. Democratic People’s Republic of Korea was hit by tropical cyclone Lingling (1913) in September.
   6. Three tropical cyclones, Podul (1912), Kammuri (1928) and Phanfone (1929) made landfall over Philippines in the year, which two of them happened in December. Kammuri made landfall over Bicol region in southern Luzon on December 3 with full force. Over 200,000 people were evacuated. 4 people were dead and 318 injured, with a direct economic loss of over 5.9 billion Philippine Peso. Phanfone crossed the central Philippines on Christmas Eve and caused substantial casualties. 50 people were dead and 362 injured, with a direct economic loss of over 3.4 billion Philippine Peso.
   7. Viet Nam was hit by tropical cyclone Mun (1904) in July. Gale force winds and heavy rain were reported during the passage of the storm.
3. **Improvement of TC Activities** 
   1. SSOP-II: Implementation of Achievement of Project of SSOP for Coastal Multi-hazard Early Warning System

With very strong support from Steering Committee (SC) and Advisory Working Group (AWG), the Project Manager Mr. Tom EVANS, in close cooperation with the Secretariats of the Typhoon Committee (TC) and the Panel of Tropical Cyclones (PTC), made great efforts on coordination with TC and PTC Members for conducting SSOP-II implementation activities in 2019, including:

* Conducted the in-country workshops of activity 2 at national-level with theme of “Preparing synergized standard operating procedures for multi-hazards early warning systems” in 4 selected Countries, namely Thailand (8-9 July 2019); Sri Lanka (23-24 September 2019); Viet Nam (26-27 September 2019); and Lao PDR (1-2 October 2019).
* Submitted the 4th progress report in April, 5th progress report in November and Terminal Report in December for SSOP-II Implementation to ESCAP.
* Completed the project evaluation by contacting the independent evaluator Mr. BISHWA N PAUDYAL from India under the advice of ESCAP. The evaluation report was submitted to ESCAP in December 2019.
* Completed the financial auditing. The Auditing Report was submitted to ESCAP.
  1. WGM&TRCG
* Second WGM Annual Meeting

The second WGM annual meeting was successfully held in Tokyo, Japan between 7-9 October 2019 with 10 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.

* Implementing WGM’s POPs, AOPs and PPs of 2019

With the assistances of TCP/WMO and TCS and the strong support from all Members, WGM has successfully completed the action plans (5 POPs, 8 AOPs and 2 PPs) in 2019, which were endorsed at the 51st Session.

* TC Roving Seminar 2019

The TC Roving Seminar 2019 with the theme on “Quantitative Precipitation Estimation and Forecasting (QPE/QPF)” was successfully held on 11-13 November 2019 in Beijing, China. It was attended with 34 participants from TC Members including China, Hong Kong, China, Lao PDR, Macau, China, Singapore, Thailand, and Viet Nam and Panel on Tropical Cyclones (PTC) Members including Bangladesh, Maldives, Myanmar, and Sri Lanka. Three lecturers from Hong Kong, China, Japan and Singapore shared their expertise.

* The 4th CMA International Training Programme on Typhoon Monitoring and Forecasting

CMA organized the 4th Typhoon International Training on Typhoon Monitoring and Forecasting in Beijing from 11 to 21 November 2019. This was the fourth consecutive year that National Meteorological Centre (NMC) of China hosted the typhoon training programme and the second year that World Meteorological Centre (WMC) Beijing co-hosted the training with WMO Regional Training Centre (RTC) Beijing. The training was attended by 36 participants from both TC and PTC Members.

* 1. WGH
* Executing Decisions of TC 51st Session  
  With strong support and close collaboration of TC Members, working group Chair/Vice-chairs and AWG members, under effective coordination of TCS, the decisions related to hydrological component made at TC 51st Session were successfully executed, and reached the expected achievement in 2019.
* Implementing WGH AOPs activities in 2019

Working Groups on Hydrology (WGH) actively and cooperatively conducted a series of activities for implementing its 7 AOPs of 2019 as planned schedule at 51st Session and achieved the success indicators. The WGH also proposed its AOPs implementation plan for 2020 and beyond, including a new proposal with AOP name of “Knowledge Sharing on Storm Surge Inundation Modelling” from WFO, Guam.

* Conducting WGH working meeting

WGH 8th working meeting was successfully held in Seoul, the Republic of Korea (ROK) with the strong support from ROK Government. Japan-side provided the offer generously to host WGH 9th working meeting in conjunction with the 4th Asia Pacific Water Summit to be held in Kumamoto, Japan in October 2020.

* 1. 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, WGDRR had a plan to conduct the expert mission in Macao or Thailand in 2019. In this regard, after TC51, TCS started to contact with the relevant focal points and coordinated the project with NDMI, Republic of Korea. However, the project was not successfully implemented as both of Macao and Thailand finally informed that they could not 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 their 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

Following the decision at TC51, it was planned to conduct the fellowship for the Benefit Evaluation of Typhoon Disaster Prevention and Preparedness in Shanghai Typhoon Institute, China. In this regard, after TC51, TCS circulated the letter to invite Members to participate in the fellowship. With coordination by TCS 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 has tried to contact Oman by correspondence to coordinate PTC Member’s participation in 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

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.

* Producing video related DRR for public education

Coordinating with Hong Kong Observatory (HKO) to produce the DRR related video that will be used for public education purpose among Members. TCS had provided the comments for selection of the video. In addition, after completing the translation of the video into English, TCS posted the video on TC website in order to facilitate Member to review and download.

1. **Strategic Development**

The Strategic Plan of Typhoon Committee from 2017 to 2021 has been approved by 49th Session of the Committee, 21- 24 February 2017 Yokohama, Japan. It will be finished in 2021 and preparations for review needs to be made for the new Strategic Plan 2021-2025.

The Committee requestes WGs to review the priorities in the Strategic Plan and submit updates and the USA to take the lead on the updating the Strategic Plan 2021-2025.

1. **Acknowledgements**

The Chairperson wishes to place on record his sincere appreciation to all those who have contributed to the continued progress of the Committee in 2019. He would particularly like to express his sincere thanks to the Members, Vice-chairperson of TC-51, Chairs and members of its subsidiary bodies, RSMC-Tokyo, who contributed to the activities of Committee, for all the time and efforts they have devoted to the work of the Committee in 2019.

The Chairperson also wishes to extend his special thanks to the Secretary and staff of TCS for their dedicated professional support for the subsidiary bodies and Members of the Committee.