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**Economic and Social Commission for Asia and the Pacific**

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Item 3 (f) of the provisional agenda*
**Review of issues pertinent to the subsidiary structure of the Commission, including the work of the regional institutions: disaster risk reduction**

# Report of the Typhoon Committee**

## I. Introduction

1. The ESCAP/WMO Typhoon Committee (TC) is an inter-governmental The Typhoon Committee (TC) was established by the Governments of ESCAP member countries affected by typhoons under the auspices of the ESCAP in cooperation with the World Meteorological Organization (WMO) in 1968 with a view to promoting and co-coordinating efforts to minimize typhoon damages in the region.

2. In the past year, under the contribution, cooperation and support of all TC Members, Advisory Working Group, working groups, and Typhoon Committee Secretariat, the Typhoon Committee was successful in achieving its goals and implement of the decisions of TC-47. Some key activities and events are as follows.

## II. Typhoons in the region

3. It was a relatively peaceful year in 2015 in terms of typhoon hazards and impacts in the Typhoon Committee (TC) region. While more details could be found in the reports by RSMC Tokyo and TC Members, the following paragraphs highlight the major typhoons which had significant impacts to the Members.

4. Typhoon Soudelor (1513) made landfall over Fujian, China on August 8, resulting in torrential rain and widespread flooding. 11 provinces of eastern China were affected with some stations recording daily rainfall of 300 to 500 millimetres, a once-in-100-years event. Economic loss was over 24 billion RMB.

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** The present report is being issued without formal editing.

5. Typhoon Mujigae (1522) underwent a typical RI (Rapid Intensification) process over the South China Sea and made landfall over Zhanjiang, China on October 4. A peak gust of 67.2 m/s (241 km/h) was observed in Zhanjiang. Strong winds, tornadoes and heavy downpour affected Guangdong, Guangxi and Hainan provinces and the economic loss was around 27 billion RMB with 27 people dead or missing.

6. Several field campaigns of the EXOTICCA project including manned/unmanned aircraft observations and rocket dropsonding were conducted by CMA and HKO in 2015. Details will be included in the EXOTICCA section below.

7. In Japan, Severe Tropical Storm Etau (1518) brought record-breaking rainfall over Honshu between 7 and 11 September. Some stations recorded more than twice as normal rainfall for September. A dyke of the Kinu River collapsed and resulted in flooding over a wide area of Joso. More than 16,000 houses were damaged/inundated and 8 people were dead. The numerical guidance provided good quantitative estimation of rainfall over 24 hours.

8. In Philippines, Typhoon Koppu (1524) made landfall over Luzon on October 18 with full force. Casiguran reported a wind speed of 252 km/h and the 24-hour rainfall in Baguio City was 775 millimetres which accounted for 170% of monthly rainfall. The United Nations has lauded the efforts of the Philippines Government in saving lives and minimizing damage as Typhoon Koppu struck Luzon, and the briefings from PAGASA helped guide the actions of local government units and volunteer groups.

# III. Cross-cutting projects and field experiments

## A. Synergized Standard Operating Procedures

9. The Project on Synergized Standard Operating Procedures (SSOP) for Coastal Multi-Hazard Early Warning System was the one in the Committee implemented jointly with the WMO/ESCAP Panel on Tropical Cyclones (PTC) with financial support from the ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness.

10. Under the guidance of ESCAP and the Steering Committee of the project, and the strong support and close cooperation from the Advisory Working Group (AWG) members, project manager/technical advisor, Working Groups and the task force of the project, the Typhoon Committee Secretariat (TCS), in cooperation with the PTC made great efforts on the implementation of the SSOP project since 2012 and successfully terminated the project in May 2015. The project made remarkable achievements and reached the expected goals, including publishing the Manual on SSOP and establishing the cooperation mechanism between the TC and the PTC.

11. Following the recommendation from the 3rd Joint Session of TC and PTC, hosted by ESCAP in February 2015: ‘To develop a proposal for SSOP Phase II, based on the successful completion SSOP project, and submit to ESCAP for funding consideration’, TCS drafted the proposal on SSOP-II and reported at the TC 10th IWS, which was held in Kuala Lumpur, Malaysia in October 2015. Based on the comments from Members, TCS revised the documents and submitted the final version to ESCAP as part of the 10th round of ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness.

12. Considering the importance of extending the results of SSOP-I in the TC and PTC Regions, and even other regions, Typhoon Committee eagerly hopes that the proposal of SSOP-II will be approved by ESCAP.

### B. The Third Joint Session of the ESCAP/WMO Typhoon Committee and Panel on Tropical Cyclone

13. The Third Joint Session of the ESCAP/WMO Typhoon Committee (TC) and Panel on Tropical Cyclone (PTC) was hosted by ESCAP at the United Nations Conference Centre in Bangkok, Thailand, from 09 to 13 February 2015. The session reviewed the activities carried out by the TC and the PTC in 2014, and exchanged experiences. The meeting also agreed on establishing a PTC/TC Cooperative Mechanism.

### C. EXOTICCA

14. The first Organizing Committee (OC) meeting of EXOTICCA was held in Shanghai on 9 October 2015. Start-up schemes and terms of reference were discussed. The Scientific Steering Committee (SSC) and Research Groups (RGs) were established.

15. For the field campaigns, the Hong Kong Observatory (HKO) conducted two manned aircraft observations for Typhoon Linfa and Typhoon Mujigae during the year, while the China Meteorological Administration (CMA) conducted an unmanned aircraft observation for Typhoon Chan-hom and a rocket dropsonding for Typhoon Mujigae on October 3 2015. The rocket was launched at the southeast coast of Hainan. After travelling 200 km towards Mujigae, the rocket landed 120 km southwest from the storm center. Four dropsondes were deployed at 11km height and data were received successfully for analysis.

16. In 2016, a workshop on typhoon intensity change forecast will be held with conjunction from WMO-TLFDP, and collaborations among participating Members will be carried out to implement field campaigns using mobile GPS radiosondes and aircraft dropsondes, etc. A TC Fellowship Scheme for demonstration research on tropical cyclone intensity change using data obtained from the field campaigns will be set up.

## IV. Strategic development

17. Typhoon Committee has initiated to renew its strategic plan from 2017 to 2021. Below is a brief overview of some of the references and guidance which will be incorporated.

### A. The outcomes from the Third United Nations World Conference on Disaster Risk Reduction

18. By the result of the 3rd UNWCDRR that has been successfully held in Sendai, Japan in March 2015, seven global targets were outlined for the new framework, which called Sendai Framework to be achieved over the next 15 years.

19. The Typhoon Committee playing the roles of an intergovernmental body functioning in disaster risk reduction should fully support and implement the new Sendai Framework on Disaster Risk Reduction through adjusting the existing strategic plan that contains the main tools for achieving the Typhoon Committee's vision and mission. As part of it, the Strategic

Goals and Associate activities and Annual Operating Plan (AOP) should be aligned with the Sendai Framework.

## B. Guidance from ESCAP

20. With reference to renew Typhoon Committee strategic plan, ESCAP has delivered a guidance message in which pointed out two main recommendations.

21. The first is to make sure that the strengthening of cooperation between the TC and the PTC, which is well underway during the current 2012-2016 cycle, is fully reflected in the new Plan.

22. The second is to reference the development of more impact-based forecasts and warnings, which is also a priority under the Sendai Framework on Disaster Risk Reduction 2015-2030. Such impact-based forecasts would require closer collaboration between the fields of meteorology, hydrology and DRR, and therefore, the TC would be extremely well placed as a platform to take this forward.

## C. WMO strategic plan for 2016-2019

23. The WMO strategic plan for 2016–2019 reflects the decisions and directions of the Seventeenth World Meteorological Congress, held in Geneva from 25 May to 12 June 2015. It sets the directions and priorities to guide the activities of the WMO to enable all Members to improve their information, products and services. It anticipates increased demand for high-quality weather, hydrological and climate services to enhance community resilience, contribute to economic growth and protect life and property from extreme weather, climate and water events.

24. The plan outlines WMO collective efforts to sustain hydro-meteorological infrastructure and advance knowledge of the Earth system through science and technology. The goal is to provide the citizens that WMO serves with fit-for-purpose, high-quality weather, climate and hydrological services. Furthermore, it illustrates the contribution of the National Meteorological and Hydrological Services (NMHSs) of WMO Members in achieving the United Nations Sustainable Development Goals and the desired outcomes of the Sendai Framework for Disaster Risk Reduction 2015–2030.

25. The WMO strategic plan’s three global societal needs, seven priorities and eight expected results for 2016–2019 will be collaborated in updating strategic plan 2017-2021.