

## Economic and Social Commission for Asia and the Pacific

### Seventy-third session

Bangkok, 15-19 May 2017

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 Panel on Tropical Cyclones\*\*

### I. Introduction

1. The WMO/ESCAP Panel on Tropical Cyclones (PTC) is an inter-governmental regional body jointly established by the World Meteorological Organization (WMO) and the United Nations Economic and Social Commission for Asia-Pacific (ESCAP) in 1972 and associated with the Tropical Cyclone Programme of WMO. Its first session was held in Bangkok, Thailand in 1973 while the Forty-third Session of the WMO/ESCAP Panel on Tropical Cyclones for the Bay of Bengal and the Arabian Sea was held in New Delhi, India from 2-6 May, 2016.

2. The main objective of the WMO/ESCAP Panel on Tropical Cyclones is to promote measures to improve tropical cyclone warning systems in the Bay of Bengal and the Arabian Sea, including dissemination of technical information on tropical cyclone research and forecasting operations to mitigate the socio-economic impacts of tropical cyclone-related disasters. The Panel develops activities under five components: Meteorology, Hydrology, Disaster Risk Reduction (DRR), Training and Research.

### II. Forty-third Session of the Panel on Tropical Cyclones

3. The Panel reviewed the 2015 cyclone season and evaluated its 2015-2016 activities undertaken at national and regional level under the main five components of the Coordinated Technical Plan (CTP). The Panel reviewed the CTP and developed the Annual Operating Plan (AOP) for 2016. The main highlighted activities and achievements included:

#### Meteorology Component

4. Several important improvements in the meteorological component were made especially concerning weather forecasts, telecommunication system, and numerical weather prediction.

\* E/ESCAP/73/L.1.

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

5. The WMO Information System (WIS) is now operational and focusing on the national level, and is expected to lead to significant benefits to Tropical Cyclone warning services in the Bay of Bengal and the Arabian Sea. Global Information System Centres (GISCs) supporting countries in the area include Beijing, Jeddah, New Delhi, Tehran and Tokyo. It is expected that these centres will work together coordinated by GISC New Delhi as the principal GISC for New Delhi Tropical Cyclone RSMC.

6. WMO informed the Panel about the Common Alerting Protocol (CAP), considered suitable for the dissemination of weather, climate and water related disaster's alerts and warnings. New applications and systems based on CAP are available for warning services.

### **Hydrology Component**

7. Several important improvements in the hydrological component were made especially weather radars, telecommunication, flood monitoring and forecasting system.

8. WMO informed that the Resolution 21 (Cg XV) was adopted to enhance cooperation between National Meteorological and Hydrological Services for improved flood forecasting and to support the implementation of demonstration projects such as the Flash Flood Guidance System (FFGS) with global coverage. Further, there is a proposal to hold a "Global Flash Flood Guidance Workshop: Advancing Operational Use", to be held in Turkey in March 2017. The purpose is to bring together practitioners to share experiences, identify strengths and weaknesses of the system, and discuss sustainability issues.

### **Disaster Risk Reduction (DRR) Component**

9. The Panel reviewed the activities of the Members and discussed the related activities of WMO and ESCAP. ESCAP provided technical assistance and policy guidance to the Panel Members. In the 71st session of ESCAP Commission in 2015, ESCAP liaised with member States and was requested to work on deepening and extending regional cooperation mechanisms. In following up this request, ESCAP implemented the Drought Monitoring and Early Warning project benefiting eight countries including PTC member States, Bangladesh, Myanmar and Sri Lanka. China and India has provided data, information and technical assistance for the project. ESCAP has also implemented a United Nations Development Account project on mainstreaming disaster risk reduction into national development strategies and plans, and the target countries include PTC members, Maldives and Sri Lanka.

### **Training Component**

10. The Panel noted the training events and workshops organized by the WMO during the intersessional period for the benefit of its Members. Members were encouraged to benefit from these training opportunities.

11. The Panel constituted an expert group to prepare a training plan for the next session.

12. Whilst there are many opportunities available for Panel members to access education and training opportunities, the offers are often un-coordinated and not all members may be aware of the opportunities. Developing and then maintaining and communicating a training plan to complement the agreed Coordinated Technical plan is one way to ensure that

the capacity of all Panel members increases. The training plan would also provide a means to identify the training gaps and options.

13. ESCAP supported 4 experts from PTC and TC to participate in the training organized by RSMC, New Delhi for forecasters in August, 2015. ESCAP also supported 4 experts from PTC to participate in the TC Roving Seminar in November 2015. It further encouraged RSMC, Tokyo to provide training to PTC members, and coordinated with RSMC, Tokyo to invite 6 PTC members to be trained in Japan.

### **Research Component**

14. The three on-going World Weather Research Programme (WWRP) projects on tropical cyclones were extended to 2018.

15. The Panel also noted that ESCAP published the following technical materials related to the work of the PTC in 2016:

a) ESCAP and SDMC (2016) Manual of Rapid Assessment for Resilient Recovery, and

b) ESCAP and RIMES (2016) Flood Forecasting and Early Warning in Transboundary River Basins: a Toolkit.

16. **Review of the Tropical Cyclone Operational Plan (TCOP):** The PTC Secretariat requested the Panel members to make carefully review the TCOP. Updates/additions/amendments were to be shared before mid-June 2016. The Panel requested Dr. M. Mohapatra to act as Rapporteur and update the Operational Plan.

## **III. Support for the Panel's Programme**

17. **Panel on Tropical Cyclones Trust Fund (PTCTF):** The Panel reaffirmed that the Fund should be used for achieving self-reliance of the Panel and thus be used not only for the provision of institutional support but also as funding support to the representatives of the Panel Members attending training events and conferences. The Panel endorsed the use of the PTCTF for 2016 for the specific activities.

18. **Review of the Terms of Reference of the Working Groups and Secretariat of the Panel:** The Panel reviewed and endorsed the ToRs of the PTC Working Groups (Meteorology, Hydrology, and Disaster Risk Reduction) and the PTC Secretariat.

19. **Implementation of SFDRR in Asia-Pacific: International Network for Multi-Hazard Early Warning Systems (IN-MHEWS):** IN-MHEWS was established as a multi-stakeholder partnership that will facilitate the sharing of expertise and good practices. ESCAP and WMO proposed the regional component with a specific focus on impact-based forecasting and risk-based early warning for coastal hazards including tropical cyclones in the Bay of Bengal and the Arabian Sea. PTC member States supported pilots for impact-based forecasting in selected countries and organization of a specific event on the regional component of IN-MHWEWS at the 7th AMCDRR in November 2016 for broader stakeholder consultations.

20. At the 7<sup>th</sup> AMCDRR, ESCAP and WMO organized a thematic session on multi-hazard early warning systems to increase availability of, and access to, multi-hazard early warning systems engaging the PTC, TC, and related

stakeholders. The outcome of the session contributed substantially to the Asia Regional Plan and helped shape the regional component of IN-MHEWS. For impact-based forecasting, the needs of information users such as the agricultural sector, disaster management agencies, communities and individuals in disaster-prone areas, etc. were identified.

21. ESCAP Multi-donor Trust Fund for capacity development on Synergised Standard Operating Procedures (SSOP II): The newly supported project offers opportunities for capacity building of the National Meteorological and Hydrological Services and regional cooperation with the ESCAP/WMO Typhoon Committee.

#### **IV. Other issues**

22. On the suggestion of Sri Lanka, the Panel agreed that RIMES may be requested to support the PTC in capacity building, strengthening observational and forecasting network in the PTC member countries.

23. Sri Lanka suggested the need for more capacity building activities for tropical cyclone forecasters in the PTC region. The Panel requested WMO to consider supporting training of tropical cyclone forecasters of PTC in various training activities conducted under the WMO-TCP and WWRP within and outside of the PTC region.

24. The Panel recognized the urgent need to address urban flood risk. In this regard, the Panel recommended ESCAP and WMO to organize a joint expert meeting of the PTC and TC to share experiences and expertise in managing urban flood risk in 2017. A project proposal on urban flood risk management of the PTC may be developed based on the discussions and information from the meeting.

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