Statement of the High-level Dialogues on Tropical Cyclones,

Tokyo, Japan 2019 (Tokyo Statement)

We, the heads and their representatives of the National Meteorological Services of twelve ESCAP / WMO Typhoon Committee Members¹ (hereinafter referred to as the National Meteorological Services) and the Regional Specialized Meteorological Centers for Tropical Cyclone Forecasting Honolulu, La Reunion, Miami, Nadi, New Delhi and Tokyo (hereinafter referred to as the Regional Centers) attended the "High-Level Dialogues on Tropical Cyclones" (hereinafter referred to as "the Dialogues"), held in Tokyo on 10 and 11 October, 2019.

The Dialogues expressed their sincere appreciation to Regional Centers' contribution to tropical cyclone disaster risk reduction in each tropical cyclone basin through the regionallybased coordination and sharing of observations, provision of forecasts and advisories, and capacity development activities over the last 30 years.

The Dialogues also expressed their sincere appreciation to the National Meteorological Services for their dedication in playing the central role in tropical cyclone forecasting and warning services.

The Dialogues reaffirmed the important roles of the World Meteorological Organization (WMO), its Tropical Cyclone Programme and the five tropical cyclone regional bodies, including the Typhoon Committee, which supported the above efforts through the regionally coordinated cooperative mechanism among Members prone to tropical cyclones, and expressed their sincere appreciation to the relevant parties including the Secretariats.

The Dialogues further reaffirmed that tropical cyclones would continue to be a major threat to people's life and property, with increasingly extreme societal impacts expected from sea level rise, unusual and varying weather and climate patterns affecting vulnerable populations, especially those of Small Island Developing States (SIDSs) and mega cities, and share the awareness that for the next 10 years, there was a need to strengthen social science approaches based on an understanding of risk perceptions, human behavior and societal impacts, in addition to natural scientific approaches.

¹ Cambodia; China; Hong Kong, China; Japan; Lao People's Democratic Republic; Macao, China; Malaysia; the Philippines; Republic of Korea; Thailand; Socialist Republic of Viet Nam and the United States of America.

Recognizing the above, the Dialogues shared the "10-year Vision to Protect Life and Property from Tropical Cyclones", and expressed the expectation that the Vision be important parts of strategic goals and objectives of WMO's Tropical Cyclone Programme and the ESCAP / WMO Typhoon Committee, to benefit all WMO Members prone to tropical cyclones.

The Dialogues recommend that the 4th Asia-Pacific Water Summit (October 2020, Kumamoto) would make reference to the "10-year Vision to Protect Life and Property from Tropical Cyclones."

The Dialogues were strongly committed to fulfilling the Vision, to continuing the efforts of the National Meteorological Services in playing a central role in disaster prevention activities in each region, country and territory, to establishing national mechanisms on disaster risk reductions, and to contributing to the successful implementation of the "Sendai Framework for Disaster Risk Reduction 2015-2030."

10-year Vision to Protect Life and Property from Tropical Cyclones

We, National Meteorological Services, recognizing our role as a trigger for disaster response in our own country or territory, will co-operate with other areas in physical science, including hydrology, as well as social science, and emergency response and civil protection sectors, will provide information that support decision making and initiate disaster response of relevant organizations and individuals for protecting life and property from disasters caused by tropical cyclones and minimizing loss and damage, and promote the use of such information. By doing so, we will realize a tropical cyclone resilient society.

To fulfill this Vision, National Meteorological Services:

Reaffirm that the provision of reliable information is underpinned by improved accuracy in observation and prediction, improved presentation of forecast uncertainty by quantification and visualization through closer international cooperation,

Reaffirm the importance of National Meteorological Services' providing and promoting the use of authoritative meteorological information that will initiate disaster response of relevant organizations and individuals, as a trigger for disaster response in her own country or territory, and **identify the following critical components**:

- Provide authoritative meteorological information that takes into consideration related organizations' and individuals' responses based on the provided meteorological information, and their evacuation and preparation actions.
- Enhance mutual understanding on the awareness of related organizations and the public on the meteorological information provided on a regular basis and on their actions taken in response to the meteorological information.
- Be flexible to enhance the meteorological information design and delivery according to user feedback and lessons learnt from disasters, and to adapt to changing circumstances.

Work on priority action areas:

- 1. Information design and delivery
- NMSs promote risk-based information provision which conveys the sense of risk appropriately.
- NMSs provide information in appropriate amount and time intervals, taking into consideration user requirements and technical feasibility, to avoid overloading/lack of information.
- NMSs deliver information in diversified yet sustainable methods.
- NMSs contribute to media reports that help audiences understand the risk appropriately and initiate necessary actions
- 2. Public awareness and education campaign
- NMSs need to enhance understanding of disaster responses and their skills in communicating meteorological information to disaster management authorities with understanding of disaster response procedures.
- NMSs promote activities to have disaster management authorities understand meteorological information.
- NMSs make use of diversified activities for a wide range of target users to raise public awareness of meteorological information.

Reaffirm that the provision of reliable information is a prerequisite for the use of information, and we will **continue to work together** with the industry and academia to improve our scientific capacity.

The Regional Centers recognize the importance of supporting each National Meteorological Service working on the above-mentioned action areas, in addition to their reliable execution of conventional tasks such as monitoring, analysis, forecasting and training activities, and take the lead in promoting:

• Sharing of satellite / aircraft / ground / ocean observation data and analysis results within each region on real-time basis,

- Providing technical support in sub-regional, regional and cross-regional projects on tropical cyclone, and encouraging experience sharing in technology development among regions,
- Sharing reviews of disasters and responses from social science perspectives within and among regions,
- Training to develop capacity in providing weather operations with full awareness of disaster management.