**APPENDIX II**

**Opening Speech by TC55 Chairperson**

**Mr. LEONG Weng Kun**

**PR of Macao, China with WMO and**

**Director of Meteorological and Geophysical Bureau**

* Prof. Celeste Saulo, Secretary General of WMO;
* Ms. Soomi Hong, Associate Economic Affairs Officer, Information and Communications Technology Disaster Risk Reduction of ESCAP;
* Mr. DUAN Yihong, Secretary of Typhoon Committee
* Mr. Muhammad Helmi Abdullah, Director General of the Malaysian Meteorological Department;

Distinguished colleagues and participants,

Good Morning! It is my honor to welcome you all to participate in the 56th Session of the Typhoon Committee hosted by MET Malaysia. It is with immense pleasure and gratitude that I extend my warmest greetings to every one of you as we come together for our first face-to-face meeting since the outbreak of the Covid-19 pandemic. This gathering represents a significant milestone in our shared journey toward enhancing regional cooperation, fortifying our response mechanisms, and bolstering our resilience against typhoons. Thank everyone for coming together to facilitate discussion about disaster risk reduction and typhoon-related issues.

In this Session, we will discuss the enhancement of the regional typhoon monitoring and forecasting capability, to scrutinize and summarize the work report for 2023, and to formulate the work plan for 2024 and beyond. I encourage each member to actively engage in the discussions, share your expertise, and exchange best practices.

This meeting is a platform for fruitful dialogue, collaboration, and the exchange of innovative ideas. By sharing our collective knowledge and experiences, we can develop strategies and initiatives that will have a lasting and positive impact on the lives of those affected by typhoons. Let us seize this opportunity to explore potential solutions for better preparedness, management and recovery in light of increasingly frequent weather disasters.

I look forward to working with you during this 4-days session and wish this meeting a great success. Thank you.

**Opening Speech by WMO**

**Prof. Celeste SAULO**

**OPENING REMARKS**

AT THE 56th session of ESCAP/WMO Typhoon Committee

(Kuala Lumpur, Malaysia, 27 February – 1 March 2024)

**Prof. Celeste Saulo, Secretary-General of WMO**

***[Opening]***

Mr LEONG Weng Kun, Chairperson of the Typhoon Committee,

Mr Muhammad Helmi ABDULLAH, the Vice-Chairperson,

Prof. DUAN Yihong, Secretary of Typhoon Committee,

Distinguished Permanent Representatives, Colleagues, Ladies and Gentlemen:

A very good day to all, I am Celeste Saulo, the Secretary-General of the World Meteorological Organization, or WMO. It's an honor to serve in this vital role, and I want to express my sincere gratitude to all Members and partners for their trust and support. Thank you for allowing me to address you today at the opening of the 56th Session of the ESCAP/WMO Typhoon Committee.

***[State of the Climate in Asia and Early Warnings for All]***

The impact of climate change persists, affecting our planet from mountain peaks to ocean depths. The recent updates from the WMO flagship publications, especially the global and regional State of the Climate reports underscore that the acceleration of a long-term warming trend, and the increasing adverse impacts of the extreme weather and climate events. This is particularly important in Asia-Pacific, home of some of the most populous and climate vulnerable countries in the world.

Nevertheless, in the past year, the Committee region experienced 17 named tropical cyclones, with 10 of them reaching typhoon intensity. These figures fall below the usual average, and the uncertainty surrounding the cause of this anomaly presents significant challenges for our services to society.

Taking this opportunity, I wish to express special thanks to all the Members of the Committee. Thank you for your commitment, contribution and hard work in mitigating the impact of typhoons on the people in the region. Your success is fundamental to our collective achievements at WMO.

***[Typhoon Committee, connexion with WMO, and contribution to EW4All Initiative]***

The Typhoon Committee is one of the five regional tropical cyclone bodies under the coordination of the WMO Tropical Cyclone Programme (TCP). It’s a regional mechanism ensuring that Committee Members have equal access to high-quality operational tropical cyclone forecasting advisories from the WMO Regional Specialized Meteorological Centre -Tokyo Typhoon Centre. Committee Members can use these advisories to create their own national forecasting and warning services. I anticipate the Committee will go a step further to the similar mechanism for hydrology and disaster risk reduction.

At national/territorial level and mapping the global and regional coordination/collaboration efforts down to the national/territorial level, the Committee Members are strongly encouraged to establish their national/territorial synergized coordination mechanism and procedures through multi-agency and multi-sectorial coordination and collaboration, thus, to enable each Member to have timely responses to early warnings of tropical cyclone disasters to the last mile.

In this connection, I am pleased to inform you that WMO has recently published the “WMO Guide for National Meteorological and Hydrological Services (NMHSs) in Support of National Multi-Hazard Early Warning Systems (MHEWSs), Procedures, Coordination Mechanisms and Services” that will be promoted to implement in each Member who is lack of sufficient warning coordination.  Such coordination, alongside quality forecasting and warning services is expected to significantly support the EW4All Initiative's successful implementation.

Early warning systems emerge as vital tools for climate change adaptation and disaster risk reduction. The Early Warnings for All initiative, announced by the UN Secretary-General in March 2022, co-led by WMO and UNDRR, aims to provide reliable early warnings to every person on Earth. This initiative aligns with the climate action acceleration agenda and contributes to climate justice, the Paris Agreement, Sendai Framework and the 2030 Agenda for Sustainable Development.

***[Socioeconomic benefits]***

Meteorological, hydrological, and climatological events such as tropical cyclones impose a heavy human and economic tolls. Between 1970 and 2021, over 2 million deaths and US$ 4.3 trillion in economic losses resulted directly from weather, climate, and water extremes. Developing countries, bear the front of these losses, both in terms of human lives and economic impact.

Recognizing the immense benefits of meteorological information and services, National Meteorological and Hydrological Services play a crucial role in delivering timely information to various sectors.

***[Cooperation is Key]***

I acknowledge the strong support from regional partners, such as ESCAP and the Typhoon Committee, towards WMO’s vision of a resilient world by 2030.

As the proverb wisely states, “If you want to go fast, go alone, if you want to go far, go together”. Through collaborative efforts, I am confident that we will achieve lasting progress.

I encourage active discussion during the session and your constructive thoughts will significantly contribute to the success of the Early Warnings for All initiative.

***[Closing]***

In conclusion, I extend my appreciation to the organizers and reaffirm WMO’s unwavering support through global, regional and national initiatives.

Our Regional Office for Asia and the South-West Pacific based in Singapore is ready to assist you.

I wish you a fruitful session ahead.

**Opening Speech by ESCAP**

**Ms. Soomi HONG**

**Opening Remarks (TC 56th Session)**

Mr. LEONG Weng Kun, Director, Macao Meteorological and Geophysical Bureau (SMG) of Macao SAR, TC55 Chairperson

Professor. Celeste Saulo, Secretary General of the World Meteorological Organization  
Mr. Yihong Duan, Secretary of Typhoon Committee  
Mr. Muhammad Helmi Abdullah, Director General of the Malaysian Meteorological Department Dr. Ching Thoo Kim, Secretary General of Natural Resources and Environmental Sustainability Distinguished participants, colleagues and honored guests,

It is my privilege and honour to be part of the 56th session of the Typhoon Committee, the first face to face annual session since the COVID outbreak. I would like to thank Malaysia for your generous hospitality and for all the work that went into making this annual session a success. I would also like to thank the Typhoon Committee Secretariat for all the support provided.

2023 was the warmest year on record and this January was the warmest January since 1940. Corpernicus Climate Change Service reported that February 2023 to January 2024 saw warming of 1.5-degrees Celsius above the 19th century benchmark. This is the first time that the planet Earth has experienced 12 consecutive months of temperatures 1.5-degree hotter than the pre- industrial era.

I am sure that as professionals in this field you already know better than anybody the implications of the warming planet on more extreme events, higher unpredictability, and cascading risks. With the warming, one hazard event triggers another and the combined effect of multitude and simultaneous disasters make it harder to anticipate and even harder to address. A case in point is 2023 Typhoon Doksuri also known as Egay, which brought intense rainfall and powerful winds to Zhejiang and Fujian provinces where it made a landfall. After the landfall, it moved northward and brought record-breaking extreme heavy rainfall in wide range of the country including North China and the Huanghuai region. The Philippines just West coast of the typhoon’s origin also suffered from loss of life, displacement and economic damage.

The four pillars of the early warning system constitute a good framework to get us prepared and build resilience before, during and after such extreme events. Subregional cooperation institutions, such as the Typhoon Committee exemplifies a successful platform embodying good practice, especially pillar 1 on building disaster risk knowledge and pillar 2 on strengthening forecasting and monitoring. I am pleased to share with you that given the importance of this initiative, ESCAP has received a mandate from the 79th session of the Commission to develop early warning systems for all at the regional level which was again reaffirmed during the 8th Committee on Disaster Risk Reduction where ESCAP was requested to “ further develop a regional strategy in support of the global and country-level implementation of the four pillars of MHEWS.”

In this regard, ESCAP plans to further strengthen our partnership with the Typhoon Committee, its members and the WMO to achieve the regional strategy on empowering transboundary solutions to transboundary hazard through systematically building resilience through subregional institutions. We must work together to save lives and protect livelihoods and ESCAP will fully support Typhoon Committee achieve this goal as part of the regional strategy.

I wish you all the best in deliberation at the 56th Session of ESCAP/WMO Typhoon Committee. Thank you.

**Opening Speech by TCS**

**Dr. DUAN Yihong**

**TC Secretary**

Distinguished **Professor Celeste Saulo,** Secretary General of World Meteorological Organization

Distinguished **Ms. Soomi Hong, the Representative of** United Nations Economic and Social Commission for Asia and the Pacific

Distinguished **Dr Ching Thoo s/o Kim,** Secretary General of Natural Resources and Environmental Sustainability, Malaysia

Distinguished **Mr. LEONG Weng Kun,** Director of Macao Meteorological and Geophysical Bureau of Macao SAR, the Chair of Typhoon Committee 55th Session.

Distinguished **Mr. Muhammad Helmi Abdullah,** Director General of the Malaysian Meteorological Department, Vice-Chair of Typhoon Committee 55th Session.

**Distinguished heads of delegate, Distinguished Guest,** Ladies and Gentlemen, Good Morning！

**Welcome to** the**56th Typhoon Committee Session**here in**Kuala Lumpur,** Malaysia! As the Secretary of the Typhoon Committee, it is my honor to welcome you all to this significant event.

Our journey over the past decades has been marked by resilience, collaboration, and a shared commitment to mitigating the impact of typhoons.

The Typhoon Committee established in 1968 under the auspices of the United Nations Economic Commission for Asia and the Pacific and the World Meteorological Organization. Typhoon Committee has played an essential role in promoting and coordinating measures to safeguard lives and minimize material damage caused by these powerful typhoons in Asia and the Pacific region.

Today, as we gather face-to-face after the challenges posed by the Covid-19 pandemic, our reunion holds special significance. It symbolizes our collective determination to overcome adversity and continue our vital work in typhoon preparedness and response.

**Kuala Lumpur**, with its rich cultural heritage, bustling streets, and warm hospitality, provides an ideal backdrop for our deliberations. Let us harness this energy as we discuss strategies to further strengthen typhoon early warning for all initiative. Our collective wisdom and determination will shape the path forward.

During this session, we will review progress made since our last Session, share best practices, and chart a course toward a safer and more resilient society. As we engage in fruitful discussions, let us also celebrate the spirit of collaboration that binds us together.

I extend my heartfelt gratitude to the **Economic and Social Commission for Asia and the Pacific** (Ms Soomi Hong) and the **World Meteorological Organization (Mr. Yu Jun and** MS. FONTAN Anne-Claire) for their unwavering support in Typhoon Committee and its Secretariat. Let us seize this opportunity to learn from one another, forge new partnerships, and reaffirm our commitment to weathering the storms as one united committee.

As the Secretary of the Typhoon Committee, I **sincerely thank**the heads of delegations and members in this Session. Your hard work and active participation have made significant contributions to typhoon defense efforts. I would like to express my special thanks to the Malaysian Meteorological Department here for hosting this wonderful S**ession**. Your warm hospitality, excellent meeting facilities, and effective organization have laid a solid foundation for the successful hosting of this conference. Let’s continue working together for even greater success in typhoon prevention!

May our time together be marked by camaraderie, innovation, and a renewed sense of purpose. Let us commence this 56th session with optimism and determination!

Thank you!

**WELCOMING REMARKS by**

**MR. MUHAMMAD HELMI BIN ABDULLAH**

**DIRECTOR GENERAL**

**MALAYSIAN METEOROLOGICAL DEPARTMENT**

**The Honourable Secretary General of the Ministry of Natural Resources and Environmental Sustainability,**

* **Dr. Ching Thoo A/L Kim**

**Secretary of the Typhoon Committee,**

* **Dr. Duan Yihong**

**Associate Economic Affairs Officer of the Information & Communications Technology for Disaster Risk Reduction of UNESCAP,**

* **Ms. Soomi Hong**

**Director of Macao Meteorological & Geophysical Bureau of Macao, China & the Chairman of TC55,**

* **Mr. Leong Weng Kun**

**Distinguished Representatives from:**

* **the World Meteorological Organisation (WMO), Ms. Anne-Claire Fontan**
* **Countries’ Permanent Representatives to the World Meteorological Organization**

Distinguished Delegates and Guests

**Ladies and Gentlemen**

First of all, it gives me great pleasure to welcome you all to “**The 56th Session of Typhoon Committee” (TC56)**. Some of you may recall that from TC52 session in 2020 until TC55 session in 2023, we were able to see each other faces through webcam only. But today finally after 4 years, since the COVID-19 pandemic we were able to hold the first face-to-face meeting. I am glad to hear that this event has garnered such a positive reception from **TC member countries!** It’s truly heartwarming to witness such widespread enthusiasm and engagement.

I wish to record our special thanks to The Honourable Dr. Ching Thoo A/L Kim, Secretary General of the Natural Resources and Environmental Sustainability Ministry, Malaysia for his presence this morning despite his busy schedules. The presence of Dr. Ching is a testimony of his profound concern and commitment towards continuing his support as well as a strong advocate of the importance of maintaining the existing cooperation and collaboration in the international programmes.

On this occasion, it is my pleasure to express my appreciation to the ESCAP/WMO Typhoon Committee for the support and assistance in organising TC56 and choosing Malaysia as the host.

I am indeed honoured as well by the presence of the experts and scientists who will share their knowledge and expertise with us today through their presentations. Their dedication and commitment are highly appreciated.

**Ladies and gentlemen**

In comparison to our neighbouring countries Malaysia is relatively less affected by severe weather due to tropical cyclones and typhoons but this does not guarantee us to be completely safe from the impact of tropical cyclones. Many other Asian countries such as China, Japan, Korea, Taiwan, Hong Kong, Vietnam, Myanmar and the Philippines are facing huge economic losses caused by tropical cyclones and typhoons.

Tropical cyclones are becoming more violent and devastating as compared to a few decades ago. Tropical cyclones are among the most destructive natural disasters in terms of loss of human lives and infrastructures.

Thus, improved understanding of the occurrences of tropical cyclones in our region is needed to enable us to forecast the weather extremes caused by these tropical cyclones.

I hope this 4-day session will also assist us in more effectively evaluating risk management and improving the forecasting of severe tropical cyclones and typhoons. By doing so, we can reduce vulnerability to disasters, minimize property damage, prevent human casualties, and mitigate the negative impacts and consequences of such natural events.

**Ladies and Gentleman,**

Allow me to conclude by expressing my heartfelt gratitude to all the participants for their unwavering commitment during the 56th Session of the Typhoon Committee. I am confident that the distinguished delegates from participating countries will derive immense value from the insightful presentations and engaging discussions scheduled over these four days. May this meeting yield fruitful outcomes, propelling us toward the achievement of our shared goals and objectives

Our active participation in this session will undoubtedly contribute to the creation of essential guidance. This guidance will assist the Typhoon Committee in formulating recommendations aimed at enhancing our coordination efforts.

**Ladies and Gentleman,**

On behalf of the Organising Committee, I extend my sincere gratitude once again to The Honourable Dr. Ching Thoo, Secretary General, Ministry of Natural Resources and Environmental Sustainability, Malaysia for his presence this morning to grace the official opening of TC56.

Last but not least, I extend my heartfelt appreciation to the dedicated secretariats of this workshop for their unwavering commitment and hard work in preparing this session.

Finally, to our friends from overseas, I hope you find time to explore the enchanting sights of Kuala Lumpur, this beautiful city. May your stay in Malaysia be filled with happiness and wonderful memories.

But don’t forget… always stay safe.

Thank you.

**SPEECH by**

**THE HONOURABLE DR. CHING THOO A/L KIM**

**SECRETARY GENERAL**

**MINISTRY OF NATURAL RESOURCES AND ENVIRONMENTAL SUSTAINABILITY**

**MR. MUHAMMAD HELMI ABDULLAH**

**Director-General, Malaysian Meteorological Department**

**MR. DUAN YIHONG**

**Secretary of The Typhoon Committee**

**Ms. Soomi Hong**

**Associate Economic Affairs Officer,**

**United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP)**

**Representative of the World Meteorological Organization, Ms. Anne-Claire Fontan**

**Countries’ Permanent Representatives to the World Meteorological Organization**

Honoured Guests

Distinguished Participants

**Ladies and Gentlemen**

**A very good morning**

Firstly, I would like to extend our warmest and heartfelt “Selamat Datang” which means a warm welcome to Malaysia, to all our distinguished guests that have travelled from various parts of the world to be with us in this 4-day meeting session of the Fifty-Sixth Session of Typhoon Committee (TC56).

On behalf of the Ministry of Natural Resources and Environmental Sustainability of Malaysia, I would like to express our gratitude in having the privilege to host this important event.

I am told that this event marks the first face-to-face meeting since the 2020 COVID-19 pandemic and I am delighted to note that this event has received an overwhelming response from 14 member countries. About 95 international participants are here today. It is indeed exceptional for so many Permanent Representatives to WMO and Heads of National Meteorological and Hydrological Services and National Disaster Management Agencies allocate their time to be here in Malaysia for this meeting.

I understand that this session is to deliberate and serve as a platform on how National Meteorological and Hydrological Services and Disaster Management Agencies can further enhance their substantive role for efficient typhoon preparedness and response.

**Ladies and gentlemen,**

Malaysia acknowledges the important role played by the ESCAP/WMO Typhoon Committee, in promoting and coordinating measures to minimize the destruction of property and loss of lifecaused by typhoons in the Asia Pacific region.

As we are all aware, majority of the tropical storms and typhoons that formed over the Northwest Pacific Ocean and South China Sea makes landfall at member countries in the Asia Pacific region. Disasters brought about by typhoons such as floods, strong winds, landslide and storm surges are major concerns for countries facing the Pacific Ocean and South China Sea.

All these extreme weather-related disasters could have significant impacts on national economies and safety of human lives. The skill and knowledge in typhoon forecasting in order to produce right forecast is needed for effective severe weather forecasting. Thus, challenge in generating weather forecasts, particularly those associated with tropical cyclone events during the southwest monsoon season, is increasing among countries in the Asian Pacific region.

**Ladies and gentlemen,**

Although Malaysia is not within the main path of tropical cyclone, few of them have hit the country directly several times. On December 25, 1996, Tropical Storm Greg hit western Sabah and caused 238 deaths and economic losses of about USD52 million. While on December 27, 2001, Typhoon Vamei that crossed the southern region of the Peninsula caused five deaths and economic losses estimated at around USD3.6 million.

The most recent was on December 16, 2021, when a tropical depression (Tropical Depression 29W) hit eastern Pahang, bringing heavy rain and causing major flooding. It caused torrential downpours throughout the Peninsular Malaysia for three days, resulting floods and left at least 54 dead. This event has been declared by government officials as a “once in a century” disaster, it is the worst flood in the country in terms of displaced residents since the 2014-2015 Malaysia monsoon floods. It caused the concurrent displacement of more than 71,000 residents, and have affected over 125,000 people overall.

**Ladies and gentleman,**

Malaysia, have already implementing the guidelines and priorities for action, including developing strategies to make disaster risk reduction a national priority, enhancing national disaster management and integrating disaster risk reduction into national policies. In this respect, I am delighted to inform that Malaysia is actively implementing a multi-hazard early warning system that includes weather and climate related events such as tropical cyclone, monsoon flood, earthquakes and tsunamis.

Through the Budget 2024 tabled in House of Parliament last year by the Right Honourable Prime Minister Datuk Seri Anwar Ibrahim, RM300 million has been allocated to National Disaster Management Agency for flood preparedness and RM11.8 billion was allocated for flood mitigation projects, that to be implemented in 2024.

This is in line with the government aspirations to improve service delivery system and to provide a conducive environment and excellence service to meet the demands and high expectations of the public particularly in natural disaster management and mitigation caused by extreme weather.

People’s vulnerability to disasters depends on the social, cultural, economic and political environment. Thus, an effective early warning is required to minimise damages and casualties.

Thus, during this 4-day session, we have the opportunity to work together to improve our capacities in the operational utilization of our resources and exchange views related to weather and flood hazards due to tropical cyclones. This is one of the ways of gaining insights into our mutual concerns thereby creating better understanding with respect to the development of effective Early Warning System.

**Ladies and gentleman,**

Despite your busy schedule during this 4-day session, I do hope that all of you will have the opportunity to experience and enjoy the diversity of our true Malaysian culture, the beautiful places throughout the country and the warmth and hospitality of the local people. Malaysia is a multicultural nation with multi-ethnic group living in peace and harmony. May your stay here in Malaysia, especially in Kuala Lumpur, remain with you thereafter as a joyful, unforgettable memory.

Before I end, I would like to thank the Malaysian Meteorological Department in collaboration with the ESCAP/WMO Typhoon Committee Secretariat for their commitments and efforts in organising this session which will forge closer collaboration among member countries on the issues of typhoon weather phenomenon.

In conclusion, I would like to wish all of you great success in your deliberations and hope that you will continuously contribute your expertise in the activities under the umbrella of Typhoon Committee.

**Ladies and Gentlemen,**

With this note, it is now my pleasure, in declaring the inaugurate of the **Fifty-Sixth Session of Typhoon Committee**.

Thank you.