

ESCAP/WMO TYPHOON COMMITTEE
18th Integrated Workshop/4th TRCG FORUM

*“Early Warnings for All Through Enhancement of
Typhoon Standard Operating Procedures (SOP)”
&
“ Towards a Typhoon Resilient Society ”*

28 November – 01 December 2023

Organized by Typhoon Committee Secretariat (TCS) &
Economic and Social Commission for Asia and the Pacific (ESCAP)

at

ESCAP Conference Center, Bangkok • Thailand

FINAL PROGRAMME

(Updated 28 November 2023)

DAY 1: TUESDAY, 28 NOVEMBER 2023 – Moderated by TCS & TRCG Chair

MEETING ROOM: PLENARY CR-4

08:30-09:00 Registration

09:00-09:40 Opening Ceremony – moderated by TCS

Welcoming Remarks

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

TRCG Chair – Dr. Anh Do, Director General, Department of Science, Technology and International Cooperation, Vietnam Meteorological and Hydrological Administration (VNMHA)

WMO – Mr. Cyrille Honoré, Director of Disaster Risk Reduction and Public Services Branch, Services Department, WMO

ESCAP – Ms. Tiziana Bonapace, Director, Information and Communications Technology and Disaster Risk Reduction Division, ESCAP

Welcome Message – Mr. DUAN Yihong, Typhoon Committee Secretary, TCS

09:40-10:00 Group photo and Coffee/Health Break

10:00-11:00 **UN Early Warnings for All (EW4ALL) INITIATIVE** – moderated by TCS
(*20 minutes for each presentation*)

1. **EW4ALL - its status, progress and planned implementation** - Mr. Cyrille Honoré, Director of Disaster Risk Reduction and Public Services Branch, Services Department, WMO
2. **EW4ALL - Transboundary Context** – Mr. Sanjay Srivastava, chief of disaster risk reduction/ IDD, ESCAP
3. **WMO hydrological and water resources activities in RAI and their contributions to EW4ALL** - Ms. Kim Hwirin, WMO RAI, Chief Hydrology

11:00-12:30 **4TH TRCG FORUM - KEYNOTE LECTURES Session 1 (PLENARY)** on the TRCG theme *"TOWARDS A TYPHOON RESILIENT SOCIETY"* – moderated by TRCG Chair

Topic 1: Artificial intelligence for tropical cyclones related applications

(25 minutes for each presentation)

1. **Digital Typhoon: Datasets, Tasks and Challenges for Machine Learning Research on Tropical Cyclones** – Dr. Asanobu KITAMOTO, National Institute of Informatics (NII) / Typhoon Science and Technology Research Center, Yokohama National University, JAPAN
2. **FengWu: Data-driven Global Weather Forecasting and Its Application in Tropical Cyclone Predictions** – Dr. Lei BAI, Shanghai AI Laboratory, CHINA
3. **Development of new rainfall products by adapting AI technology to Himawari-8** - Dr. Taichi TEBAKARI, Director, Asia Water Science Research Center, Dept. of Civil and Environmental Engineering Chuo University, JAPAN

12:30-13:30 Lunch

13:30-15:00 **4TH TRCG FORUM - KEYNOTE LECTURES Session 2 (PLENARY)** – moderated by TRCG Chair

Topic 2: Special target observation over the western North Pacific

(25 minutes for each presentation)

1. **Practice of rapid response of CMA FY-4B satellite observation system for typhoon monitoring** – Dr. Feng Lu, National Weather Satellite Center, CMA, CHINA
2. **Overview of KPOP-MS and field experiment plan KPOP-MS: Korea Precipitation Observation Program - International collaborative experiments for Mesoscale convective System in Seoul metropolitan area** – Dr. Eun Jeong Cha, National Meteorological Research Institute, KMA, REP.KOREA ([online](#))
3. **Field Experiment Study for Orographic Precipitation Observation in Korea** - Dr. Dong In Lee, Pukyong National University, REP.KOREA

(Coffee/Health Break^{*})

15:00-16:30 **4TH TRCG FORUM - KEYNOTE LECTURES Session 3 (PLENARY)** – moderated by TRCG Chair

Topic 3: Impact based forecasting for tropical cyclones

(25 minutes for each presentation)

1. **Impact-based ensemble forecasting of tropical cyclones** -Dr. Yohei SAWADA, JAPAN
2. **Impact-based Forecasting and Warning for Tropical Cyclones** – Dr. Senaka Basnayake, ADPC, THAILAND
3. **Challenges for the second half of the implementation of the Sendai Framework for Disaster Risk Reduction** - Dr. Yuichi Ono, Tohoku University, JAPAN

16:30-17:00 Q&A

End of DAY 1

DAY 2: WEDNESDAY, 29 NOVEMBER 2023

BREAKOUT ROOMS: PLENARY CR-4; MR-H; MR-D

MEETING ROOM: PLENARY CR-4

- 08:30-11:30 **4TH TRCG FORUM - TOPICAL DISCUSSION (BREAKOUT GROUPS)** – moderated by TRCG Chair and Vice-TRCG Chairs
(Breakout Discussions 3 groups)
- 11:30-12:30 **WRAP-UP DISCUSSION of the 4TH TRCG FORUM - (PLENARY)** – moderated by TRCG Chair
Outcomes from each topic group (key scientific and technical issues)
- 12:30-13:45 **Lunch**
- 13:45-17:00 **18TH IWS - TECHNICAL PRESENTATIONS (PLENARY)** on the 18th IWS theme of **“EARLY WARNING FOR ALL THROUGH ENHANCEMENT OF TYPHOON SOPS”** – moderated by AWG Chair/Vice-Chairs
(20 minutes for each presentation)

Part 1 – Moderated by AWG Chair – Dr. T.C. LEE

1. **3D Virtual Typhoon Synthesis for Proactive Warning System Using Virtual Cloud3D** - Prof. Dr. Somporn Chuai-Aree and Dr. Wattana Kanbua, TMD, THAILAND
2. **3D Virtual Flood Simulation for Proactive Community Preparation** - Prof. Dr. Somporn Chuai-Aree and Dr. Wattana Kanbua, TMD, THAILAND
3. **China’s Practice in Meteorological Early Warnings** - Ms. CHEN Sining, Chinese Academy of Meteorological Sciences (CAMS), CHINA
4. **Satellite Remote Sensing-based Flood Disaster Monitoring affected by Typhoon SON-TINH: Nongbok District of Khammouane Province, Lao PDR** - Mr. Virasith Phomsouvanh, Deputy Director, Natural Resources and Environment Research Institute, Ministry of Natural Resources and Environment, LAO PDR

(Coffee/Health Break*)

Part 2 – Moderated by AWG Vice-Chair - Dr. ISHIHARA Koji

5. **Real-time Flash Flood Forecasting System using Data Assimilation for Early Warning in Small and Mid-scale River basins** - Dr. KAKINUMA Daiki, ICHARM, JAPAN
6. **Brief Introduction to Guangdong Emergency Early Warning Release Platform** - CHENG Zhengquan, CMA, CHINA *(online)*
7. **Latest Developments of HKO’s Tropical Cyclone Warning Services** - Ms. Yip Ling, Jennifer, HKO, HONG KONG, CHINA
8. **Application of AI in typhoon forecasting and warning (online)** – Mr. Kanghui Zhou, WMO AI Professional Officer, WMO *(online)*

Q&A

End of DAY 2

DAY 3: THURSDAY, 30 NOVEMBER 2023 – Moderated by Vice-AWG Chair

MEETING ROOM: PLENARY CR-4

PARALLEL SESSION ROOMS: [PLENARY/WGM](#): CR-4; [WGH](#): MR-H; [WGDRR](#): MR-D; [TRCG](#): MR-C

09:00-12:00 **18TH IWS - TECHNICAL PRESENTATIONS (PLENARY)** on the 18th IWS theme of **"EARLY WARNING FOR ALL THROUGH ENHANCEMENT OF TYPHOON SOPS "** (*cont'd*)
(*20 minutes for each presentation*)

Part 3 – Moderated by AWG Vice-Chair – Mr. Tom EVANS

1. **Multi-layered Water-related Disaster Risk Reduction toward Early Warning for All** - Mr. KIKUTA Tomoya, MLIT, JAPAN
2. **Coastal Hazard and Risk Analysis** - Dr. KOHNO Nadao, Tokyo Typhoon Center, JMA, JAPAN
3. **A Study of Typhoon Analysis using Wind Data of GK2A Satellite** - Mr. Jinho SHIN, NMSC/KMA, KOREA

(Coffee/Health Break*)

Part 4 – Moderated by AWG Chair

4. **Forecasting of Tropical Cyclones Ex-tropical Transition in the Northwest Pacific** - Ms. XIANG Chunyi, National Meteorological Center, CMA, CHINA
5. **Advancing the Prediction of Rapid Intensification of Typhoons** - Ms. Seonghee WON, NTC/KMA, KOREA
6. **The extraordinarily large vortex structure of Typhoon In-fa (2021), observed by spaceborne microwave radiometer and synthetic aperture radar** - Ziyao Sun, STI, CMA, CHINA

Q&A

12:00-14:00 Lunch

14:00-17:00 **PARALLEL SESSION** - WGM, WGH, WGDRR and TRCG meetings: **WGs' Activities**
(*the programs of WGs' meeting will be provided by WGs*)

End of DAY 3

DAY 4: FRIDAY, 01 DECEMBER 2023 – Moderated by AWG Chair

PARALLEL SESSION ROOMS: [PLENARY/WGM](#): CR-4, [WGH](#): MR-H, [WGDRR](#): MR-D, [TRCG](#): MR-C

MEETING ROOM: PLENARY CR-4

09:00-12:30 **PARALLEL SESSION** - WGM, WGH and WGDRR meetings: **WGs' Activities** (Cont'd)

12:30-13:30 Lunch

13:30-14:50 **PLENARY SESSION** - Reports of the Working Groups (20 minutes for each WG)
(WGM, WGH, WGDRR & TRCG)

(Coffee/Health Break*)

14:50-16:30 Plenary discussion on AOPs, AP-TRCRC and SSOPIII

16:30-16:40 Other Businesses

16:40-17:00 Closing by TCS and ESCAP

End of DAY 4

OBS:

No free tea/coffee services during 18th IWS.

* *No official coffee break timeslot will be arranged. Participants can take their own health/coffee break during the session as they see fit.*

** *Participants are permitted to bring ONLY sealed bottles or mugs with closable lid into the meeting room. "Open" coffee mugs or containers are NOT ALLOWED inside the meeting room to prevent accidental equipment damages. UN also promotes reusable containers to reduce single use plastic. Water refill stations are available throughout the UNCC.*

Pre-18th IWS/AWG Meeting *(TBC - subject to venue and members' availability, tentatively on the late afternoon of 27 November 2023)*