

(Item 8 of Tentative Programme for TC 58th Session)  
(Submitted by WGDRR)

ACTION REQUIRED:

The Working Group is invited to:

- A. Review the activities of TC WGDRR conducted in 2025
- B. Approve the recommendations and AOPs with the related budget of WGDRR in 2026

APPENDIX:

- I. Draft text for Inclusion at Session Report
- II. Progress Report on activities of Working Group on WGDRR in 2025

ANNEX

- I. Implementation Status Success Indicators of WGDRR Annual Operating Plans in 2025
- II. Implementation Status Success Indicators of WGDRR Annual Operating Plans in 2026.

# APPENDIX

## I. Draft text for inclusion at Session Report

### 1. Disaster Risk Reduction Component

During the 20<sup>th</sup> Integrated Working Group DRR parallel meeting on 4th December 2025, held in Macao, China, the Working Group reviewed its activities and its Annual Operating Plans (AOPs) for 2025. Please refer to Appendix II for details.

Dr. Chihun LEE Vice Chair of WGDRR welcomed all the members and delivered the opening remarks and moderator of the meeting welcomed all the members and representatives. Participants were invited to introduce themselves during the meeting and a group photo was taken.

10 of 14 member countries from (1 China, 2. Hong Kong, China, 3. Japan, 4. Lao PDR, 5. Macao, China, 6. Malaysia, 7. Philippines, 8. Republic of Korea, .9. Thailand, 10. Vietnam), TCS, WMO, and other related agencies participated in the meeting.

Dr. Chihun Lee, from NDMI introduced the work and activities of WGDRR 2025. The Working Group passed the following AOPs 2025 during the 20<sup>th</sup> Working Group DRR meeting in Seoul, Republic of Korea on 27-30 May 2025, the Working Group reviewed its activities and its Annual Operating Plans (AOPs) for 2025. Around 50 participants from ESCAP, WMO, TCS, AWG DRR members (China, Hong Kong China, Japan, Lao PDR, Macao China, Malaysia, Philippines, Republic of Korea, Thailand, USA(Guam), Vietnam participated in the meeting.

#### I. Components of the WGDRR

##### WGDRR Member (Focal points)

<i>Chair</i>	Dr. OH,Keumho (Repulic of Korea)
<i>Vice Chairs</i>	Mr. Marcus Landon Aydlett (USA) Dr. Chihun LEE (Republic of Korea)
<i>Focal Points</i>	Mr Sambang Seng (Cambodia) Ms CHANG Yue (China) Mr. CHOE Kyong Sik (DPR Korea) Mr. K K Hon (Hong Kong, China) Mr. YANADA Yuki (Japan) Ms. FUKUSUMI Naho / Mr. OBA Hiraku (Japan) Ms. Akhom Thammalangsy (Lao PDR) Mr. Fan Ka Wa (Macao, China) Ms Siti Mariam Abu (Malaysia) Dir. Maria Agnes T. Palacio (Philippines) Dr. Chihun LEE (Republic of Korea) Mr. Cheong Wee Kiong (Singapore) Ms. Duangnapa Uttamangkpong (Thailand) Mrs. Nguyen Huu Hoang Anh (Vietnam)

## II. Review of the 2025 AOPs & Budget Status

- a. AOP1. Capacity Building / Knowledge Sharing (NDMI)
  - i. Members from Republic of Korea and Vietnam participated in the “World Bosai Forum 2025”, and hosted a session titled “From Data to Action: Monitoring Systems and Early Warnings for DRR” which was held on March 7 to 9 at Sendai International Center in Japan.
  - ii. Key Implications
    - 1. To strengthen DRR and to develop a Model for sharing and Utilizing disaster information.
    - 2. To improve data accessibility and usability, which is essential for disaster management.
- b. AOP2. Setting up Early Warning and Alert System (NDMI)
  - i. NDMI has launched the project for strengthening capabilities of disaster risk reduction with the Philippines since 2013
  - ii. The project continued in Danao, Argao, Olongapo and La paz for transferring disaster safety technologies in 2023-2024.
  - iii. NDMI inspected the installation of ARWS and FEWS during the period in October 13- 23, 2024 in La Paz & Olongapo, Philippines and September 7~ 16, 2023 in Danao & Argao, Philippines
  - iv. NDMI conducted Self-Assessment and inspect operation and management status of Early Warning and Alert System during the period of June 30 to July 7, 2025, in Danao & Olongapo, Philippines.
- c. AOP3. WGDRR Annual Meeting
  - i. NDMI held the 20th annual meeting on May 27-30, 2025, in Seoul, Republic of Korea to facilitate the follow-up of the WGDRR activities and information sharing related to DRR. The theme of the 20th Annual Meeting is "Shifting Paradigms in Disaster Risk Reduction: “Strategies for Climate Change Risks”. Participants included representatives from ESCAP, WMO, TCS, DRR members (China, Hong Kong, China, Japan, Lao PDR, Macao, China, Malaysia, Philippines, Republic of Korea, Thailand, USA(Guam), Vietnam and the AWG members.
- d. AOP4. Benefit Evaluation of Typhoon Disaster Prevention and Preparedness (STI)
  - i. A special fund of USD6,000 from Typhoon Committee Trust Fund (TCTF) was used to support 1-2 participants to work in Shanghai Typhoon Institute for a duration of two to six weeks. One representative from Thailand applied for this program and worked in STI from October 15 to November 14, 2025.
  - ii. The objective of this project is
    - 1. to collect or supplement tropical cyclone damage data, disaster prevention and preparedness strategies, reduction measures etc. and to share it with the members.
    - 2. to develop or introduce benefit evaluating questionnaire(s).
    - 3. to develop or introduce technique(s) for risk or damage assessment related with tropical cyclones, or evaluation benefit of their disaster prevention and preparedness.

- e. AOP5. Sharing Information related to DRR
  - i. To improve the capacities of Member's Disaster Management, WGDR will continue to exchange information and experience related to DRR through the forum on TC website.
  - ii. Members are required to register the Glide so that DRR information can be shared among the members.
  
- f. AOP6. Making Education Videos related to DRR (HKO)
  - i. A video named "Wild Waves under Calm Winds" was translated into English with voiceover and subtitles as the coming education video related to DRR. HKO shared the video during the meeting, and no further comment was received from the members. The video was uploaded to the Typhoon Committee website for members to use on public education on DRR.

## 2. Conclusion of WGDRR

Based on the information provided by the Members, the reports presented by project coordinator/leader and findings of the parallel session on WGDRR, the following conclusions were reached:

- a. AOP1 Capacity building and knowledge Sharing in DRR.
  - i. Hosting Capacity building and knowledge sharing seminar
  - ii. Date / Venue: TBD / Malaysia, Vietnam
  - iii. Cross cutting project with WGH
  
- b. The AOP2 Installation of Early Warning System related to typhoon disasters.
  - i. NDMI has launched the project for strengthening capabilities of disaster risk reduction with the Philippines since 2013
  - ii. NDMI conducted a self-assessment and inspected management status of the Early Warning and Alert System from 30 June to 7 July 2025 in Danao and Olongapo
  - iii. NDMI identified the necessity of implementing supplementary measures for strengthening local technicians' capabilities
  - iv. NDMI will continue this project for establishment of early warning system for disaster risk reduction in province of Cebu, Philippines in 2026-2030
  
- c. AOP 3 WGDRR Annual Meeting.
  - i. NDMI will continue to host the 21<sup>st</sup> WGDRR meeting tentatively from May 19 to 22, 2026.
  
- d. AOP 4 Benefit Evaluation of Typhoon Disaster Prevention and Preparedness Project.
  - i. Shanghai Typhoon Institute fellowship program is expected to continue in 2026 and will be hosted by STI/CMA and co-organized by AP-TCRC.
  
- e. AOP 5 Sharing Information related to DRR.
  - i. To improve the capacities of Member's Disaster Management, WGDRR will continue to exchange information and experience related to DRR through the forum on the TC website.
  - ii. Using Glide(<https://glidenum.net>) to share DRR information with Members
  
- f. AOP 6 Making Education Videos related to DRR.
  - i. Hong Kong Observatory will continue to contribute educational videos related to DRR with English translation in 2026.

The following AOP 7 and AOP 8 were proposed during 20th Working Group DRR meeting and were confirmed on the 20th IWS in December 3-5, 2025.

- g. AOP 7 Lessons from 2024 super typhoon Yagi.
  - i. Vietnam's AOP proposal for 2026 aims to share valuable lessons learned from the collaboration between the Disaster Risk Reduction (DRR) government agency and international organizations following Super Typhoon Yagi in 2024.
  - ii. The budget is \$2,700, with main activities including collecting information and photos of Yagi typhoon (windstorms, rains and floods, rising river levels, etc.), statistics of damage caused by Yagi (to infrastructure, fields, trees, houses, schools, etc.) and need assessment of affected people.
  - iii. To collect information and photos of the operations of the Disaster Risk Reduction Partnership (DRRP), including meetings where typhoon developments were updated and the call for emergency relief issued, as well as rapid assessment surveys.
  - iv. The outcome will be a video highlighting the lessons from Typhoon Yagi.
  
- h. AOP 8 Improvement of Warning Dissemination and Disaster Response for Early Warnings.
  - i. The program aims at mutual learning and exchange of disaster warning dissemination and response mechanisms among TC Members.
  - ii. Representatives will visit China for two weeks to engage in joint studies focused on typhoon-related disaster warning methods. The training course, titled "Mazu" Early Warning and Disaster Mitigation and Prevention, is tentatively scheduled for May 2026 in Beijing or another city in China.
  - iii. Targeting disaster management staff from TC Members, the budget is set at \$2,000, with sponsorship applied from the CMA-WMO Belt and Road Trust Fund. The focal point for this initiative is Ms. Chang Yue from CMA.
  
- g. For implementation of the proposed projects in 2026, WGDRR proposed the request of USD 30,700 to be allocated TCTF for the following items:
  - i. To allocate USD 11,000 budget of TCTF in 2026 for Capacity Building/Knowledge Sharing in DRR .
  - ii. To allocate USD 6,000 budget of TCTF in 2026 for WGDRR Annual Meeting.
  - iii. To allocate USD 6,000 budget of TCTF in 2026 for STI Benefit Evaluation of Typhoon Project.
  - iv. To allocate USD 3,000 budget of TCTF in 2026 for Making Education Videos related to DRR.
  - v. To allocate USD 2,700 budget of TCTF in 2026 for Lessons from 2024 super typhoon Yagi
  - vi. To allocate USD 2,000 budget of TCTF in 2026 for Improvement of Warning Dissemination and Disaster Response for Early Warnings.

### 3. Recommendations for Implementation in 2026

Based on the conclusion, the WGDRR made the following recommendations:

- 1) To request NDMI to organize the team to the selected member for the project of capacity building and knowledge sharing in DRR.
- 2) To request NDMI to continue supporting the development and improvement of the early warning and alert systems related to typhoon disaster in the participating members.
- 3) To request NDMI to continue supporting and hosting the WGDRR Annual Meeting in 2026 in ROK.
- 4) To request STI, China to continue conducting the research of the project of benefit evaluation of typhoon disaster prevention and preparedness.
- 5) To encourage the Members to share information related to DRR on the established forum of TC Website and are required to register the Glide.
- 6) To request the HKO to continue providing WGDRR with a video related to typhoon disaster or severe weather and translate it into English version (voiceover and subtitle) for Members use on DRR public education.
- 7) To request the VDDMA to coordinate and share the valuable lessons learned from the collaboration between the Disaster Risk Reduction (DRR) government agency and international organizations following Super Typhoon Yagi in 2024.
- 8) To request the CMA to coordinate the organization of the training course titled "Mazu" Early Warning and Disaster Mitigation and Prevention, and to apply the CMA-WMO Belt and Road Trust Fund for the training course, which is tentatively scheduled for May 2026 in Beijing or another city in China.
- 9) To request the Typhoon Committee to approve the proposed projects and related budget in 2026.

### III. AOP Alignment with 4 pillars of the EW4All Initiative

4 Pillars of EW4All	Related AOP with pillar(s)							
	AOP 1	AOP 2	AOP 3	AOP 4	AOP 5	AOP6	AOP7	AOP8
Disaster risk knowledge and management	✓	✓	✓	✓	✓	✓	✓	✓
Detection, observation, monitoring, analysis, and forecasting		✓		✓				✓
Warning dissemination and communication		✓			✓	✓	✓	✓
Preparedness and response capabilities		✓	✓	✓		✓	✓	✓

AOP1: Capacity Building / Knowledge Sharing in DRR (NDMI)

AOP2: Setting up Early Warning and Alert System (NDMI)

AOP3: Hosting WGDRR Annual Meeting (NDMI)

AOP4: Benefit evaluation of Typhoon Disaster Prevention and Preparedness(STI)

AOP5: Sharing Information related to DRR (NDMI)

AOP6: Making Education Videos related to DRR (HKO)

AOP7 Lessons from 2024 super typhoon Yagi

AOP8: Improvement of Warning Dissemination and Disaster Response for Early Warnings.

#### 1. Review of 2025 Budget Status.

1. The expenditure for 2025 WGDRR AOP1 to AOP6 will be USD 25,113.86 and left a balance of USD 886.14

Project No	Name of Project	Proposed Budget (USD)	Expenditure (USD)
AOP1	Capacity Building/Knowledge Sharing in DRR	\$11,000	\$10,631.88
AOP2	Installation of Early Warning System related to typhoon disasters	Funded by NDMI	--
AOP3	WGDRR Annual Meeting	\$6,000	\$6,000.00
AOP4	Benefit Evaluation of Typhoon Disaster Prevention and Preparedness	\$6,000	\$6,000.00
AOP5	Sharing Information related to DRR	No need	--
AOP6	Making video related to DRR	\$3,000	\$2,481.98
Subtotal		\$26,000	\$25,113.86
Balance			\$886.14

1. WGDRR AOP 2026 and Budget

1. 2026 Budget

KRA	No	Name of Project	Proposed Budget (USD)
KRA5 KRA7	AOP1	Capacity Building/Knowledge Sharing in DRR (NDMI)	\$11,000
KRA2 KRA3	AOP2	Installation of Early Warning System related to typhoon disasters (NDMI)	Funded by NDMI
KRA4 KRA5	AOP3	WGDRR 21st Annual Meeting (NDMI)	\$6,000
KRA2 KRA4 KRA6	AOP4	Benefit Evaluation of Typhoon Disaster Prevention and Preparedness (STI)	\$6,000
KRA5 KRA7	AOP5	Sharing Information related to DRR	No need
KRA7	AOP6	Making video related to DRR (HKO)	\$3,000
KRA7	AOP7*	Lessons from 2024 super typhoon Yagi (Vietnam)	\$2,700
KRA2 KRA3	AOP8*	Warning Dissemination and Disaster Response - Cloud based Early Warning System Development (China)	\$2,000
		Total	USD30,700

\*New AOP in 2026

2. **Other business**----

1. Reappointment of the Vice Chair

WGDRR would like to propose the reappointment of Dr. Chihun LEE and Mr. Marcus Landon AYDLETT as the Vice Chair of WGDRR.

**ANNEX**

I. Implementation for WGDRR AOPs in 2025 with the success indicators

SP's KRA and SG	NO	Objective	Action	Other WGs Involved	TCS Responsibility	Quarter Completed	Project leader/Other Organizations Involved	Success Indicators	Funding Required USD	Funding Sources	Completed YES/NO
KRA5 KRA7	1	Capacity Building /Knowledge Sharing	Participated in the World Bosai Forum 2025 and hosted a session “From Data to Action: Monitoring Systems and Early Warnings for DRR”.	Invite other WGs to join	Coordination and participation	First	NDMI, Vietnam And participating members	Conducted the Mission in the selected member state	USD 10,631.88	NDMI and TCTF	Yes
KRA2 KRA3	2	Installation of warning systems related to typhoon disaster	NDMI conducted Self-Assessment and inspect operation and management status of Early Warning and Alert System in Danao &		Coordination	Second	NDMI	NDMI assigned experts to Philippines to install and maintain the systems	Unspecified	NDMI	Yes

SP's KRA and SG	NO	Objective	Action	Other WGs Involved	TCS Responsibility	Quarter Completed	Project leader/Other Organizations Involved	Success Indicators	Funding Required USD	Funding Sources	Completed YES/NO
			Olongapo, Philippines.								
KRA4 KRA5	3	Organizing the WGDRR Annual Meeting	To organize the annual meeting to follow up on the working group's activities and information exchange	AWG Members	Coordination and participation	Second	NDMI and TC DRR Members	The meeting was held in Seoul	USD 6,000	NDMI and TCTF	Yes
KRA1 KRA6	4	Benefit Evaluation of Typhoon Disaster Prevention and Preparedness	To promote research concerning benefit evaluation of typhoon disaster prevention and preparedness.		Coordination and participation	Fourth	STI, China AP-TCRC	Conducted a research fellowship for TC Member in STI, China. One representative from Thailand joined this program.	USD6,000		Yes
KRA4 KRA5	5	Sharing information related to disaster risk management	To share information such as policies or mechanism related to DRR among TC Members via		Encourage member to register with Glide	Time to time	NDMI and TCS	Members shared the information on the forum	No need		Yes

SP's KRA and SG	NO	Objective	Action	Other WGs Involved	TCS Responsibility	Quarter Completed	Project leader/Other Organizations Involved	Success Indicators	Funding Required USD	Funding Sources	Completed YES/NO
			the forum established on TC Website								
KRA5 KRA7	6	Making educational video related to DRR	To produce a video related to DRR education for raising public awareness.		Coordination	Second	HKO	Prepare a video with English subtitle and voiceover and shared with TC Members	USD 2,481.98	TCTF	Yes

- KRA 1: Enhance capacity to monitor mortality and direct economic loss caused by typhoon-related disasters.
- KRA 2: Enhance capacity to generate and provide accurate, timely and understandable information using multi-hazard impact-based forecasts and risk-based warnings.
- KRA 3: Improve typhoon-related flood control and integrated water resource management.
- KRA 4: Strengthen typhoon-related disaster risk reduction activities in various sectors, including increased community-based resiliency with better response, communication, and information sharing capability.
- KRA 5: Enhance Typhoon Committee's Regional and International collaboration mechanism.
- KRA 6: Create a framework for cooperative scientific research on tropical cyclone and related disciplines, particularly in relation to climate change, and include support for translating research outcomes to services by developing relevant experiments, research projects, conducting field surveys, and publishing and promoting research findings.
- KRA 7: Enhance the resilience of vulnerable communities, especially coastal communities, to tropical cyclone impacts.

**ANNEX**

II. WGDRR AOPs in 2026 with the success indicators

SP's KRA and SG	NO	Objective	Action	Other WGs Involved	TCS Responsibility	Quarter Completed	Project leader/Other Organizations Involved	Success Indicators	Funding Required	Funding Sources	Completed YES/NO
KRA5 KRA7	1	Capacity Building /Knowledge Sharing	To host capacity building and knowledge sharing seminar in Malaysia	Invite other WGs to join	Coordination and participation	First/Second	NDMI And participating members	Conducted the Mission in the selected member state	USD11,000	TCTF	
KRA2 KAR3	2	Installation of warning systems related to typhoon disaster	To establish EWS for Disaster Risk Reduction in Cebu, Philippines		Coordination	TBC	NDMI	NDMI assigned experts to Philippines to install and maintain the systems	Unspecified	NDMI	
KRA4 KRA5	3	Organizing the WGDRR Annual Meeting	To organize the annual meeting to follow up on the working group's activities and information exchange	AWG Members	Coordination and participation	Second	NDMI and TC DRR Members	The meeting will be held in ROK	USD6,000	NDMI and TCTF	
KRA1 KRA6	4	Benefit Evaluation of Typhoon Disaster Prevention	STI fellowship program. 1-2 participants to work in STI for 2-6 weeks		Coordination	TBC	STI, China AP-TCRC	Shared the research result with members	USD6,000	TCTF	

SP's KRA and SG	NO	Objective	Action	Other WGs Involved	TCS Responsibility	Quarter Completed	Project leader/Other Organizations Involved	Success Indicators	Funding Required	Funding Sources	Completed YES/NO
		and Preparedness									
KRA4 KRA5	5	Sharing information related to disaster risk management	To share information such as policies or mechanism related to DRR among TC Members via the forum established on TC Website		Facilitate information sharing	Fourth	NDMI and TCS	Members shared the information on the forum	No need		
KRA5 KRA7	6	Making educational video related to DRR	To produce a video related to DRR education for raising public awareness.		Coordination	Third/ Fourth	HKO	Prepare a video with English subtitle and voiceover and shared with TC Members	USD3,000	TCTF	
KRA5 KRA7	7*	Lessons from 2024 super typhoon Yagi	To produce a video related Typhoon Yagi which shared the lessons learnt from the joint		Coordination	Fourth	Vietnam	Prepare a video with English subtitle and voiceover and shared with TC Members	USD2,700	TCTF	

SP's KRA and SG	NO	Objective	Action	Other WGs Involved	TCS Responsibility	Quarter Completed	Project leader/Other Organizations Involved	Success Indicators	Funding Required	Funding Sources	Completed YES/NO
			activities between DRR government agency and international organizations in relief support								
KRA2 KRA3	8*	Warning Dissemination and Disaster Response - Cloud based Early Warning System Development (China)			Coordination	Second	CMA, China	Training course name: "Mazu" Early Warning and Disaster Mitigation and Prevention held	USD2,000	TCTF	

\*New AOP in 2026

- KRA 1: Enhance capacity to monitor mortality and direct economic loss caused by typhoon-related disasters.
- KRA 2: Enhance capacity to generate and provide accurate, timely and understandable information using multi-hazard impact-based forecasts and risk-based warnings.
- KRA 3: Improve typhoon-related flood control and integrated water resource management.
- KRA 4: Strengthen typhoon-related disaster risk reduction activities in various sectors, including increased community-based resiliency with better response, communication, and information sharing capability.
- KRA 5: Enhance Typhoon Committee's Regional and International collaboration mechanism.

- KRA 6: Create a framework for cooperative scientific research on tropical cyclone and related disciplines, particularly in relation to climate change, and include support for translating research outcomes to services by developing relevant experiments, research projects, conducting field surveys, and publishing and promoting research findings.
- KRA 7: Enhance the resilience of vulnerable communities, especially coastal communities, to tropical cyclone impacts.