ESCAP/WMO Typhoon Committee Fifty-Seven Session of Typhoon Committee 17th ~ 20th February, 2025 Conference Seda Manila Bay Parañaque City, Metro Manila, Philippines

REPORT on Activities of Working Group on Disaster Risk Reduction (WGDRR) of TC in 2024

(Item 8 of Tentative Programme for TC 57th Session) (Submitted by WGDRR)

ACTION REQUIRED: The Working Group is invited to:

- A. Review the activities of TC WGDRR conducted in 2024
- B. Approve the recommendations and AOPs with the related budget of WGDRR in 2025

APPENDIX:

- I. Draft text for Inclusion at Session Report
- II. Progress Report on activities of Working Group on WGDRR in 2024

ANNEX

- I. Implementation Status Success Indicators of WGDRR Annual Operating Plans in 2024
- II. Implementation Status Success Indicators of WGDRR Annual Operating Plans in 2025

APPENDIX

I. Draft text for inclusion at Session Report

1. Disaster Risk Reduction Component

During the 19th Integrated Working Group DRR parallel meeting on 21st November 2024, held in Shanghai China, the Working Group reviewed its activities and its Annual Operating Plans (AOPs) for 2024. Please refer to Appendix II for details.

Dr. Woojung Choi Vice Chair of WGDRR welcomed all the members and delivered the opening remarks. Mr. Marcus Landon Aydlett Vice Chair of WGDRR 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.

11 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. USA(Guam) and 11. Vietnam, TCS, WMO, and other related agencies participated in the meeting.

Dr. Chihun Lee, from NDMI introduced the work and activities of WGDRR 2024. The Working Group passed the following AOPs 2024 during the 19th Working Group DRR meeting in Seoul, Republic of Korea on 25-28 June 2024, the Working Group reviewed its activities and its Annual Operating Plans (AOPs) for 2024. 42 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)

Chair	Dr. OH,Keumho (Repulic of Korea)
Vice Chairs	Mr. Marcus Aydlett (USA)
	Dr. Woojung Choi (Republic of Korea)
Focal Points	National Committee for Disaster Management (Cambodia)
	Ms. Dong Lin (China)
	Mr. CHOE Kyong Sik (DPR Korea)
	Mr. K K Hon (Hong Kong, China)
	Ms. OOHASHI Makiko (Japan)
	Mr. UMETSU Togo/Ms. FUKUSUMI Naho (Japan)
	Ms. Akhom Thammalangsy (Lao PDR)
	Mr. Fan Ka Wa (Macao, China)
	Ms. Siti Mariam Abu (Malaysia)
	Mr. CESAR M. IDIO, CESO V (Philippines)
	Dr. Chihun Lee (Republic of Korea)
	Mr. Cheong Wee Kiong (Singapore)
	Mr. Saharat Wongsakulwiwat (Thailand)
	Mrs. Nguyen Thi Xuan Hong (Vietnam)

- II. Review of the 2024 AOPs & Budget Status
 - a. AOP1. Capacity Building / Knowledge Sharing (NDMI)
 - i. The AOP1 workshop on Knowledge Sharing and Capacity Building in Disaster Risk Reduction (DRR) was successfully held from 24th to 26th September 2024 in Japan. This workshop was organized by the National Disaster Management Research Institute (NDMI), co-organized by the International Centre for Water Hazard Risk Management (ICHARM), Japan Meteorological Agency, and Tohoku University. Participants included representatives from NDMI, Macao, China, Vietnam, and TCS.
 - b. AOP2. Setting up Early Warning and Alert System (NDMI)
 - i. NDMI has been strengthening disaster risk reduction capabilities in the Philippines since 2013. In 2024, the project was in Olongapo and La Paz following a prefeasibility study. A field survey was conducted in April, and an inspection of the Early Warning and Alert System, along with an educational program, was completed in October.
 - c. AOP3. WGDRR Annual Meeting
 - NDMI held the 19th annual meeting on 25-28 June 2024, in Seoul, Republic of Korea to facilitate follow-up of the WGDRR activities and information sharing related to DRR. The theme of the 19th Annual Meeting is "Towards EW4AII: Bridging Gaps for Effective Disaster Risk Reduction". 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. One representative from Malaysia applied the program and worked in STI from 25th November to 24th December 2024.
 - ii. The project's objectives are to:
 - a. Collect and share data on tropical cyclone damage, prevention strategies, and reduction measures.
 - b. Develop benefit evaluation questionnaires.
 - c. Create techniques for risk and damage assessment related to tropical cyclones.
 - e. AOP5. Sharing Information related to DRR
 - i. To enhance disaster management capacities, WGDRR will continue sharing information and experiences on the TC website forum. Members are requested to register with Glide (https://glidenumber.net/glide/public/about.jsp) to enable sharing of disaster risk-reduction information.
 - f. AOP6. Making Education Videos related to DRR (HKO)
 - i. A video named "Typhoon Hazards: Strong Winds, Heavy Rain, High Seas" was translated into English with voiceover and subtitles as the education video related to DRR. The video was available in the Typhoon Committee website for members to download for use in DRR public education.

A. 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 / Knowledge Sharing, NDMI plans to participate in the PRiMO (Pacific Risk Management 'Ohana) conference, scheduled for 17th to 20th March 2025, in Honolulu, Hawaii. Additionally, NDMI intends to attend the World Bosai Forum, which will take place from 7th to 9th March 2025, at the Sendai International Centre in Japan.

- b. The AOP2 project focuses on installing early warning systems for typhoon disasters in the Philippines. It includes a self-assessment of the project's effectiveness from 2023 to 2024, using OECD DAC criteria: relevance, efficiency, effectiveness, impact, sustainability, and coherence. Suggestions for improvement include creating utilization plans, conducting stakeholder surveys, and offering community training programs. There is no plan of EWS installation in 2025.
- c. AOP 3 WGDRR Annual Meeting. NDMI will continue to host the 20th WGDRR meeting in 2025.
- d. AOP 4 Benefit Evaluation of Typhoon Disaster Prevention and Preparedness Project. The Shanghai Typhoon Institute fellowship program is expected to continue in 2025. The fellowship program will be hosted by STI/CMA and co-organized by AP-TCRC. One participant from Malaysia worked in STI from 21st November to 20th December 2024.
- e. AOP 5 Sharing Information related to DRR. Members are requested to register the Glide. WGDRR will continue to exchange information and experience related to DRR through the forum on TC Website.
- f. At the 19th WGDRR annual meeting, Hong Kong Observatory expressed that they could continue contributing educational videos related to DRR for TC DRR public education use. The project will continue to be led by HKO
- g. For implementation of the proposed projects in 2025, WGDRR proposed the request of USD 28,500 to be allocated TCTF for the following items:
 - i. To allocate USD 22,500 budget of TCTF in 2025 for Capacity Building/Knowledge Sharing in DRR.
 - ii. To allocate USD 3,000 budget of TCTF in 2025 for STI Benefit Evaluation of Typhoon Project
 - iii. To allocate USD 3,000 budget of TCTF in 2025 for Making Education Video related to DRR.

B. Recommendations for Implementation in 2025

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 2025 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 cooperation of the Synergized Standard Operating Procedures for Coastal Multi-Hazard Early Warning System Phase 3 concept SSOP III with WGDRR.
- 8) To request the Typhoon Committee to approve the proposed projects and related budget in 2025.

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			
Disaster risk knowledge and management	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark			
Detection, observation, monitoring, analysis, and		\checkmark		\checkmark					
forecasting									
Warning dissemination and communication		\checkmark			\checkmark	\checkmark			
Preparedness and response capabilities		\checkmark	\checkmark	\checkmark		\checkmark			

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)

IV. Review of 2024 Budget Status.

The expenditure for 2024 DRR will be AOP1 to AOP6 which incurred expenditure of USD19,186.52. This made a balance of USD5,313.48.

Project No	Name of Project	Proposed Budget (USD)	Expenditure (USD)		
AOP1	Capacity Building/Knowledge Sharing in DRR	\$12,500	\$7,770.68		
AOP2	Installation of Early Warning System related to typhoon disasters	Funded by NDMI			
AOP3	WGDRR Annual Meeting	\$3,000	\$2,728.87		
AOP4	Benefit Evaluation of Typhoon Disaster Prevention and Preparedness	\$6,000	\$6,000		
AOP5	Sharing Information related to DRR	No need			
AOP6	Making video related to DRR	\$3,000	\$2,686.97		
Subtotal		\$24,500.00	\$19,186.52		
Balance		\$5,313.48			

V. 2025 WGDRR AOPs & Budget Plan

KRA	No	Name of Project	Proposed Budget (USD)
KRA5	AOP1	Capacity Building/Knowledge Sharing in DRR	\$11,000
KRA7		(NDMI)	
KRA2	AOP2	Installation of Early Warning System related to	Funded by NDMI
KRA3		typhoon disasters (NDMI)	
KRA4	AOP3	WGDRR Annual Meeting	\$6,000
KRA5			
KRA2	AOP4	Benefit Evaluation of Typhoon Disaster Prevention	\$6,000
KRA4		and Preparedness (STI)	
KRA6			
KRA5	AOP5	Sharing Information related to DRR	No need
KRA7			
KRA7	AOP6	Making video related to DRR (HKO)	\$3,000
Total			USD26,000

VI. Appointment of the Vice Chair

a. Replacement of Vice Chair: Dr. Woojung Choi to Dr. Chihun Lee

The Vice Chair of WGDRR Mr. Marcus Aydlett and other members attending the meeting expressed gratitude for Dr. Woojung Choi long-term contributions to the work of WGDRR, and deeply appreciated his efforts. The members attending unanimously agreed that Dr. Chihun Lee would replace Dr. Woojung Choi as the Vice-Chair of WGDRR.

ANNEX

I. Implementation for WGDRR AOPs in 2024 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	The AOP1 workshop was successfully, organized by NDMI and co-hosted by ICHARM, the Japan Meteorological Agency, and Tohoku University.	Invite other		Third	NDMI And participating members	Conducted the Mission in the selected member state		NDMI and TCTF	Yes
KRA2 KRA3	2	Installation of warning systems related to typhoon disaster	The project is ongoing in Olongapo and La Paz, following a prefeasibility study, with a field survey completed in April and an upcoming inspection of the Early Warning and Alert System and educational program in October.		Coordination	Fourth	NDMI	NDMI assigned experts to Philippines to install and maintain the systems		NDMI	Yes

SP's KRA and SG	NO	Objective	Action	Other WGs Involved	TCS Responsibility	Quarter	Project leader/Other Organizations Involved	Success Indicators	Funding Required USD	Funding Sources	Completed YES/NO
KRA4 KRA5	3	Meeting	the working group's		Coordination and participation	Second	NDMI and TC DRR Members	The meeting was held in ROK	USD 2,728.87	NDMI and TCTF	Yes
KRA1 KRA6	4		To promote the research concerning benefit evaluation of typhoon disaster prevention and preparedness.		Coordination and participation	Third/ Fourth	STI/CMA	Conducted a research fellowship for TC Member in STI, China. One representative from Malaysia joined this program.	USD6,000	TCTF	Yes
KRA4 KRA5	5	Sharing information related to disaster risk managemen t	To share information such as policies or mechanism related to DRR among TC Members via the forum established on TC Website				NDMI and TCS	Members shared the information on the forum	No need		Yes
KRA5 KRA7	6		To produce a video related to DRR education for raising public awareness.		Coordination	Second	нко		USD 2,686.97	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 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	Funding Sources	Completed YES/NO
KRA5 KRA7	1	Capacity Building /Knowledge Sharing	To organize an expert team to participate in the PRiMO and The World Bosai Forum conference for DRR information and capacity building exchange	Invite other WGs to join	Coordination and participation	Second	NDMI And participating members	Conducted the Mission in the selected member state		NDMI and TCTF	
KRA2 KRA3	Z	Installation of warning systems	Conduct self- assessment of the project's effectiveness from 2023 to 2024, using OECD DAC criteria: relevance,		Coordination	Fourth	NDMI	Assessment result of the 2023 and 2024 project's effectiveness	Inspecified	NDMI	
KRA4 KRA5	3	WGDRR Annual	To organize the annual meeting to follow up on the working group's		Coordination and participation	Second	NDMI and TC DRR Members	The meeting was held in ROK	USD3,000	NDMI and 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
			information exchange.								
KRA1 KRA6	4	Typhoon Disaster	To promote the research concerning benefit evaluation of typhoon disaster prevention and preparedness.		Coordination	Third/Fourth	STI/CMA	Shared the research result with members	USD6,000	TCTF	
KRA4 KRA5	5		To share information such as policies or mechanism related to DRR among TC Members via the forum established on TC Website		Establishment of the forum on TC website for facilitating the information sharing	Fourth	NDMI and TCS	Members shared the information on the forum			
KRA5 KRA7	6		To produce a video related to DRR education for raising public awareness.		Coordination	Second	НКО	Prepare a video with English subtitle and voiceover and shared with TC Members	USD3,000	TCTF	

- 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.