**APPENDIX XII**

1. Progress Report on activities of Working Group on WGDRR in 2022
2. Introduction

The Working Group of Disaster Risk and Reduction (WGDRR) continued to implement a series of projects according to the plan outline from the 54th TC Session. However, most of the face to face programs or projects are hindered by the COVID travel restrictions and was replaced by virtual meetings.

1. Components of the WGDRR

WGDRR Member (Focal points)

|  |  |
| --- | --- |
| *Chair* | Dr. Jongseol Lee (Repulic of Korea) |
| *Vice Chairs* | Mr. Marcus Aydlett (USA)  Dr. Woojung Choi (Republic of Korea) |
| *Focal Points* | National Committee for Disaster Management (Cambodia)  Mr. Wang Yawei (China)  Mr. CHOE Kyong Sik (DPR Korea)  Mr. W Kong (Hong Kong, China)  Ms. KABUTO Shoko (Japan)  Mr. ISHIGAMI Shogo (Japan)  Ms. Akhom Thammalangsy (Lao PDR)  Mr. Fan Ka Wa (Macao, China)  Ms. Che Siti Noor bint koh Poh Lee (Malaysia)  Mr. Bernardo Rafael R Alejandro IV, CESO IV (Philippines)  Dr. Chihun Lee (Republic of Korea)  Mr. Cheong Wee Kiong (Singapore)  Mr. Saharat Wongsakulwiwat (Thailand)  Mrs. Nguyen Thi Xuan Hong (Vietnam) |

1. Organization of the 17th Working Group Disaster Risk and Reduction Virtual Meeting in October 21 2022

A video conference for the 17th Working Group meeting of ESCAP/WMO Typhoon Committee (TC) Working Group on Disaster Risk and Reduction (WGDRR) was organized by the National Disaster Management Institute (NDMI) on October 21, 2022 to discuss the implementation status of the Annual Operation Plan in DRR aspects.

The meeting was convened by Dr Jongseol Lee, Chair of WGDRR, with around 30 members and representatives from ESCAP, WMO, Republic of Korea, ADRC, Thailand, Malaysia, Lao PDR, Vietnam, USA, China (Shanghai, Hong Kong and Macau) and TCS participating. Dr Chihun Lee from NDMI was the moderator of the meeting.

During the meeting, the 2022 AOP implementation status was reviewed as follow

1. AOP1. Capacity Building / Knowledge Sharing (NDMI)
   1. NDMI and NOAA held the Knowledge Sharing program in Guam, 26th July, 2022 with a total of around 20 experts attended the program which also included OCD and Red Cross.
   2. 7 experts from NDMI made a presentation on disaster management around topics of drought, satellite, landslide, disaster investigation etc.
2. AOP2. Setting up Early Warning and Alert System (NDMI)
   1. NDMI had launched the project for strengthening capabilities of disaster risk reduction with the Philippines from 2013 to 2015.
   2. Early Warning and Alert Systems was installed in Toledo and Dumanjug City, the province of Cebu in October 2022.
   3. NDMI conducted the field survey to choose sites for constructing systems in 2022 on June 12 -18 in Toledo & Dumanjug, the Philippines
   4. Feasibility studies such as site visit, land survey and meetings with local office was conducted
3. AOP3. WGDRR Annual Meeting (NDMI)
   1. Owing to the COVID situation, WGDRR annual meeting has been using online mode since 2020. If the situation in 2023 permits, it will get back to face to face meeting in Korea. If not, it will still be online meeting.
4. AOP4. Benefit Evaluation of Typhoon DRR (STI)
   1. Dr. Peiyun from Shanghai Typhoon Institute (STI), China Meteorological Administration presented the progress of the benefit Evaluation of Typhoon DRR.
   2. This Project was led by STI that functions to establish a set of evaluation index and provide an evaluation report that assists in decision-making basis for the optimization of typhoon disaster behavior.It included the research of the validity of STIDM, the development of a real time simulation system of typhoon rainstorm waterlogging over Shanghai, an update the operational pre-assessment system of risk caused by TCs and an update the database of damage caused by TCs over WNP
   3. A real - time flood simulation system in Shanghai is developed and tested by historical cases.
   4. Taking Shanghai as an example, a town-scale operational pre-assessment system of TC hazard for megacity was tested during Muifa 2022.
5. AOP5. Sharing Information related to DRR
   1. WGDRR will continue to exchange information and experience related to DRR through the forum on the TC website. Members are welcome to upload all kinds of DRR information such as data, video clips to the TC website.
6. AOP6. Making Education Videos related to DRR (HKO)
   1. A video about “Does a closer distance of a tropical cyclone from Hong Kong always mean a greater threat?” 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 and WMO’s YouTube Channel for members to use on public education on DRR.
7. AOP7. Seminar for TC Crowd-sourcing high density non-conventional weather data (HKO)
   1. An online seminar for TC Crowd-sourcing high density non-conventional weather data for TC members was held on July 5, 2022. During the seminar, two talks on the “Pilot Crowd Sourcing Scheme” and “Establishment of Microclimate Station Network in Hong Kong” were delivered by HKO. AOP 7 was regarded as accomplished after this online seminar.

During the meeting, the WGDRR 2022 Budget Status was reviewed as follow

|  |  |  |  |
| --- | --- | --- | --- |
| Project No | Name of Project | Proposed Budget (USD) | Actual Expenditure (USD) |
| AOP1 | Capacity Building/Knowledge Sharing in DRR | $10,000 | $2,550.04 |
| AOP2 | Installation of Early Warning System related to typhoon disasters | Funded by NDMI | -- |
| AOP3 | WGDRR Annual Meeting | Funded by NDMI | -- |
| AOP4 | Benefit Evaluation of Typhoon Project | Funded by STI |  |
| AOP5 | Sharing Information related to DRR | No need | -- |
| AOP6 | Making video related to DRR | $2,000 | $1,746.47 |
| AOP7 | Seminar for TC Crowd-sourcing high density non-conventional weather data | No need | -- |
|  | Total | $12,000 | $4,296.51 |
|  | Balance for 2022 $7,703.49 |  |  |

The expected expenditure for 2022 DRR will be AP01 – Capacity Building / Knowledge Sharing trip to Guam which cost USD2,550.04 and AOP6 – Making of Educational Video which cost USD1,746.47. Thus, the total expenditure of 2022 WGDRR budget was USD4,296.51which left us a balance of USD 7,703.49.

The participants expressed their appreciation to National Disaster Management Institute (NDMI) for their kind contribution and continued support on WGDRR activities, China STI for supporting the benefit evaluation of Typhoon DRR research, and the Hong Kong Observatory for making educational videos for the past years.

The participants extended their further appreciation to the Working Group Chairs, Dr. Jongseol Lee, Chair ,Mr. Marcus Aydlett and Dr. Woojung Choi Vice Chairs on their contribution and effort in the past years.

1. WGDRR AOP 2023 and Budget

|  |  |  |  |
| --- | --- | --- | --- |
| Project No | Name of Project | Working Plan 2023 | Proposed Budget (USD) |
| AOP1 | Capacity Building/Knowledge Sharing | Knowledge sharing meeting will continue in Philippines and Lao PDR. | $12,500 |
| AOP2 | Installation of Early Warning System related to typhoon disasters | Will implement a new project in Danao City and Municipality of Argao in the province of Cebu in Philippines | Funded by NDMI |
| AOP3 | WGDRR Annual Meeting | Face to face meeting in Korea if situation permits. | Funded by NDMI |
| AOP4 | Benefit Evaluation of Typhoon Project | Research continue and Fellowship program will start if COVID 19 situation permits. | No need |
| AOP5 | Sharing information related to DRR | Sharing information in TC website forum. | No need |
| AOP6 | Making video related to DRR | Making more educational videos by HKO. | $3,000 |
|  | Total |  | USD15,500 |

ANNEX

1. Implementation for WGDRR AOPs in 2022 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 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| KRA3  KRA4  KRA5  KRA7 | 1 | Capacity Building /Knowledge Sharing | To organize an expert team to Palau for DRR information and capacity building exchange | Invite other WGs to join | Coordination and participation | Third | NDMI  And participating members | Conducted the Mission in the selected member state | USD2,550.04 | NDMI and  TCTF | Yes |
| KRA2  KAR3  KRA4  KRA5  KRA6  KRA7 | 2 | Installation of warning systems related to typhoon disaster | To develop and improve the installed EW and Alert Systems in the members’ state in order to improve the capacities of resilience for typhoon related disaster |  | Coordination | Fourth | NDMI | NDMI assigned experts to Philippines to install and maintain the systems | Unspecified | NDMI | Yes |
| KRA1  KRA4  KRA5  KRA6  KRA7 | 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 ROK | Unspecified | NDMI | No |
| KRA1  KRA4  KRA5  KRA6 | 4 | Benefit Evaluation of Typhoon Project | To promote the research concerning benefit evaluation of typhoon disaster prevention and preparedness. |  | Coordination and participation | Second/  Third | STI, China | Conducted a research fellowship for TC Member in STI, China | No need |  | No |
| KRA2  KRA3  KRA4  KRA5  KRA7 | 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 |  | Establishment of the forum on TC website for facilitating the information sharing | Fourth | NDMI and TCS | Members shared the information on the forum | No need |  | Yes |
| KRA2  KRA3  KRA4  KRA5  KRA7 | 6 | Making educational video related to DRR | To produce a video related to DRR education for raising public awareness. |  | Coordination | Fourth | HKO | Prepare a video with English subtitle and voiceover and shared with TC Members | USD  1,746.47 | TCTF | Yes |
| KRA2  KRA3  KRA4  KRA5  KRA7 | 7 | Seminar for TC Crowd-sourcing high density non-conventional weather data | HKO organize a Seminar and WG to coordinate the Member to take part in |  | Coordination | Third | HKO and participating members | An online Seminar was successfully held by HKO | No need |  | 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.

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1. WGDRR AOPs in 2023 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 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| KRA3  KRA4  KRA5  KRA7 | 1 | Capacity Building /Knowledge Sharing | To organize an expert team to Philippines and Laos for DRR information and capacity building exchange | Invite other WGs to join | Coordination and participation | Third | NDMI  And participating members | Conducted the Mission in the selected member state | USD12,500 | NDMI and  TCTF |  |
| KRA2  KAR3  KRA4  KRA5  KRA7 | 2 | Installation of warning systems related to typhoon disaster | To develop and improve the installed EW and Alert Systems in the members’ state in order to improve the capacities of resilience for typhoon related disaster |  | Coordination | Fourth | NDMI | NDMI assigned experts to Philippines to install and maintain the systems | Unspecified | NDMI |  |
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| KRA1  KRA4  KRA5  KRA6 | 4 | Benefit Evaluation of Typhoon Project | To promote the research concerning benefit evaluation of typhoon disaster prevention and preparedness. |  | Coordination | Third | STI, China | Shared the research result with members | Unspecified | STI |  |
| KRA2  KRA3  KRA4  KRA5  KRA7 | 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 |  | Establishment of the forum on TC website for facilitating the information sharing | Fourth | NDMI and TCS | Members shared the information on the forum | No need |  |  |
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  + KRA 7: Enhance the resilience of vulnerable communities, especially coastal communities, to tropical cyclone impacts.