APPENDIX XII

THE REPORT OF WGDRR PARALLEL SESSION

During the 7th Typhoon Committee Integrated Workshop held in Suning Venice Hotel, Nanjing, China from 26 to 30 November, 2012, Working Group on Disaster Risk Reduction (WGDRR) had two days parallel session on 27 through 28 November, 2012.

1. WGDRR Parallel Session

There are 22 from 11 Members (i.e. China; Hong Kong, China; Japan; Lao PDR; Macao, China; Malaysia; Philippines; Republic of Korea; Thailand; USA (Guam); Viet Nam) and TCS attending on the WGDRR parallel sessions.

The WGDRR parallel session exchanged the information on priorities and key areas; reviewed the progress in the implementation of the AOP for 2012; discussed the future of WGDRR in 2013 AOP; discussed how to consolidate the international cooperation research; identified the priority and strategic needs of the TC Members; and proposed the budget for WGDRR in 2013.

1.1 2013 WGDRR AOPs

In 2013 WGDRR AOP, total eight projects are included as follows;

AOP1: Extend the WEB GIS based Typhoon Committee Disaster Information System (WGTCDIS) for upgrading the search option for similar Typhoon and collecting disaster information from TC Members

AOP2: Provide the training program for disaster prevention policies and technologies such as Flash Flood Alert System (FFAS), Frequency Analysis for Rainfall Data (FARD), Application of radar for urban flood warning, and Soil Erosion Model for Mountainous Area (SEMMA) including WGTCDIS

AOP3: Promote the international cooperation research by dispatching the experts of Korea and TCS to Philippines for installing the Flash Flood Alert System (FFAS) and AWS

AOP4: Promote and extend the dissemination of warnings and alerts by Members through SWIC (Severe Weather Information Center)

AOP5: Set up community weather stations for raising public awareness on climate change and extreme weather

AOP6: Benefit Evaluation of Typhoon Disaster Prevention and Preparedness

AOP7: Support Synergized Standard Operation Procedure (SSOP) project related to
1.2 Main Discussion of WGDRR

During parallel session, Working Group on Disaster Risk Reduction reported the activities of TC and WGDRR, WGTCDIS, and results of 2012 WGDRR workshop and expert mission. Also, the participants of WGDRR mainly discussed: i) review of AOPs for 2012; ii) 2013 AOPs and budget of WGDRR; iii) new proposed project led by NDMI; iv) upgrade of WGTCDIS in 2013; v) ideas for TRCG forum in 8th integrated workshop in 2013; vi) the role of WGDRR in SSOP project; vii) 2013 expert mission plan.

1.3 Confirmed Budget Proposal for WGDRR in 2013

WGDRR proposed the requests of US$ 27,000 allocated TCTF in 2013 to support WGDRR activities including:

i) to allocate US$ 8,000 budget of TCTF in 2013 for supporting WGDRR participating in next TC Integrated Workshop.

ii) to allocate US$ 6,000 budget of TCTF in 2013 for supporting community based weather station pilot project offering expert to visit interested members to install the weather stations and to provide technical documentation on installation, maintenance and data processing and display.

iii) to allocate US$ 4,000 budget of TCTF in 2013 for supporting TC Members for collecting typhoon disaster information to extend the WGTCDIS.

iv) to allocate US$ 7,000 budget of TCTF in 2013 for supporting TCS, UNESCAP and WMO participating on WGDRR Expert Mission.

v) to allocate US$ 2,000 budget of TCTF in 2013 for support benefit evaluation of Typhoon disaster prevention and preparedness project

Conclusions of WGDRR:

On the basis of the information provided by the Members and findings of the parallel session on WGDRR, the following conclusions were reached:

a. The WGDRR recognized the necessity of continuous collection of disaster information from Member countries for WGTCDIS. Collection of disaster information from Member countries will be continued in 2013.

b. National Disaster Management Institute (NDMI) will expand WGTCDIS in 2013. This work will include the upgrade of search option for finding similar Typhoon.

c. Expert mission to four TC members namely Guam, Viet Nam, Lao PDR, and Thailand will be conducted in 2013 to provide training on the operation of WGTCDIS by NDMI and TCS. 2013 Expert Mission will also provide the training program for disaster prevention technologies and policies. The contents of the expert mission program will
consist of Flash Flood Alert System (FFAS), Frequency Analysis for Rainfall Data (FARD), application of radar for urban flood warning, and Soil Erosion Model for Mountainous Area (SEMMA).

※ Note: With reference to the contents of 2013 expert mission, Member countries can select and request the training program.

d. Republic of Korea proposed new project led by NDMI for 2013 to promote the international cooperation research for disaster risk management. In 2013, NDMI and TCS will dispatch the experts of Republic of Korea and TCS to Philippines for installing the Automated Weather Station (AWS) and Flash Flood Alert System (FFAS) in Cagayan de Oro, Mindanao Island in Philippines.

※ Note: NDMI proposed to all TC members if they want to join this project similar to Philippines and suggested TC members who are interested in the project to submit their proposal before May 2013.

e. Hong Kong (China) had made preparations for the installation of automated weather stations for the pilot project for Community Weather Station in 2012. With regarding this, Hong Kong Observatory (HKO) will set up the community weather stations in Philippines and Guam in December, 2012. The whole set up of the community weather station project will be demonstrated to TC members in the 45th Session.

f. China proposed a new project namely “Benefit Evaluation of Typhoon Disaster Risk Reduction” in 44th TC session and this project will be included in 2013 AOP of WGDRR.

g. The 8th WGDRR Workshop will be held in Seoul, Republic of Korea on 23-24 May 2013.

**Recommendations of WGDRR:**

On the basis of the information provided by the Members and deliberations, the WGDRR made the following recommendations:

a. To allocate US$27,000 budget of TCTF in 2013 for i) supporting WGDRR participating in next TC Integrated Workshop, ii) supporting community based weather station pilot project offering expert to visit interested members to install the weather stations and to provide technical documentation on installation, maintenance and data processing and display, iii) supporting TC Members for collecting typhoon disaster information to extend the WGTCDIS, and iv) supporting TCS, UNESCAP and WMO participating on WGDRR Expert Mission.

b. To collect the disaster information from TC Members for extending TCDIS, the continuity of such collection should be maintained and this project will be continued in 2013.

c. To send expert mission for WGTCDIS, disaster prevention technologies, and policies to 4 TC Members namely Guam, Lao PDR, Thailand, and Viet Nam in 2013.

d. To develop the urban disaster risk assessment system, the research results of urban disaster forecast and rainfall runoff reduction system will be introduced in 2013 expert mission.
e. To organize the team with NDMI and TCS to visit Philippines for international cooperation research. The team will:
   i) perform the feasibility study to launch the project successfully
   ii) install Automated Weather Station (AWS) and Flash Flood Alert System
f. To start new project namely “Benefit Evaluation of Typhoon Disaster Prevention and Preparedness” led by China to evaluate the different disaster prevention and preparedness measures and provide the result as the basis of decision making policy.
g. To set up automatic weather stations for the community based weather station project in the 2 interested Members in 2013
<table>
<thead>
<tr>
<th>KRA and SGs</th>
<th>Objective Number</th>
<th>Objective</th>
<th>Action</th>
<th>Other WG’s</th>
<th>TCS Responsibility</th>
<th>Expected Quarter Completed</th>
<th>Other Organizations Involved</th>
<th>Success Indicators</th>
<th>Funding Required</th>
<th>Funding Sources</th>
<th>Completed Yes or No</th>
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<tbody>
<tr>
<td>KRA 4</td>
<td>1</td>
<td>Transferring the WGTCDIS</td>
<td>(i) Extend the WEB GIS based Typhoon Committee Disaster Information System (WGTCDIS) for early warning system and localized assessing in conjunction with other WGs (ii) Perform the expert mission on the WGTCDIS for Philippines and USA on March, 2011</td>
<td>TCS WGM WGH</td>
<td>Assist in planning the expert mission</td>
<td>First</td>
<td>WMO UNESCAP ADRC UNISDR</td>
<td>(i) Complete collecting disaster information from Thailand, Philippines, USA and Cambodia (ii) Send expert team for implementation of the WGTCDIS to two Members of Philippines and USA</td>
<td>US $12,000</td>
<td>NDMI, Korea and TCTF</td>
<td>(i) Yes (ii) Yes</td>
</tr>
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<td></td>
<td>2</td>
<td>Enhancing the WGTCDIS</td>
<td>(i) Develop Geo-Linking system for integrated disaster risk assessment (ii) Develop GIS based information sharing system to collect and disseminate various disaster related information</td>
<td>WGM WGH</td>
<td>Provide guideline to support $1000 for collecting disaster information</td>
<td>Fourth</td>
<td>ADRC UN/ISDR</td>
<td>(i) Complete developing the Geo-Linking system (ii) Complete developing the GIS based information sharing system</td>
<td>US $ 36,000</td>
<td>NDMI, Korea and TCS</td>
<td>(i) Yes (ii) Yes</td>
</tr>
<tr>
<td>KRA ALL</td>
<td>3</td>
<td>Providing WGTCDIS for UFRM Project</td>
<td>(i) Provide WGTCDIS training in a focused, integrated WGM, WGH, TRCG Workshop (ii) Review progress of WGTCDIS project for UFRM and future activities of WGDRR (iii) Produce localized disaster risk maps for TC Members</td>
<td>WGM WGH TRCG AWG RMG</td>
<td>Provision of administrative support</td>
<td>Second or Third</td>
<td></td>
<td>(i) Complete report on Urban Flood Risk Management (UFRM) Project</td>
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<td>KRA 4</td>
<td>4</td>
<td>Modifying the WGTCDIS</td>
<td>(i) Calibrate and validate the WGTCDIS for all typhoons in 2012 with TC Members (ii) Modify the estimation methods to adapt WGTCDIS on TC Members.</td>
<td></td>
<td>Assist in including presentation on the TC Session agenda</td>
<td>Fourth</td>
<td></td>
<td>(i) Successful acceptance of WGTCDIS by TC Members</td>
<td></td>
<td>(i) Yes</td>
<td></td>
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<td>5</td>
<td>Publishing the annual disaster assessment report</td>
<td>(i) Collect disaster information from TC Members (ii) Held annual WGDRR Workshop (iii) Assess typhoon related disasters in the TC Region (iv) Establish the standard disaster information database</td>
<td>WGM WGH TRCG AWG</td>
<td>Assist in collecting disaster information from Members</td>
<td>Fourth</td>
<td></td>
<td>(i) Publish the annual disaster assessment report (ii) Hold WGDRR workshop</td>
<td>US $ 3,000</td>
<td></td>
<td>(i) No (ii) Yes</td>
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<td>SP's KRA and SG</td>
<td>Objective Number</td>
<td>Objective</td>
<td>Action</td>
<td>Other WGs</td>
<td>TCS Responsibility</td>
<td>Expected Quarter</td>
<td>Other Organizations Involved</td>
<td>Success Indicators</td>
<td>Funding Required</td>
<td>Funding Sources</td>
<td>Completed Yes or No</td>
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<td>KRA 4 SG 4b SG 4c KRA 5 SG 5b</td>
<td>6</td>
<td>Emergency response network for urban risk management</td>
<td>(i) Develop the urban disaster risk assessment system based on risk maps (ii) Develop the dissemination system to share situation information to escape from dangerous area or reduce traffic jam (iii) Provide guideline to manage disasters in urban area, educate and train earlier disaster</td>
<td>AWG WGH TRCG</td>
<td>Provision of administrative support</td>
<td>Fourth</td>
<td>WMO UNESCAP ADRC UNISDR Columbia University</td>
<td>(i) Develop the urban disaster risk assessment system</td>
<td></td>
<td></td>
<td>On going</td>
</tr>
<tr>
<td>KRA 4 SG 4b and 4c KRA 5 SG 5b</td>
<td>7</td>
<td>A feasibility study on the real-time transmission of severe weather warning and carry out trials</td>
<td>(i) Assist in liaison work for implementation commenced (ii) Extend dissemination of warnings to become available on SWIC (Severe Weather Information Center) by the 44th Session</td>
<td>WGM TRCG</td>
<td>Assist in liaising with focal points</td>
<td>Fourth</td>
<td>WMO</td>
<td>(i) Complete trial dissemination of weather warnings (ii) Extend dissemination of warnings to a few more members</td>
<td></td>
<td></td>
<td>(i) Yes (ii) Yes</td>
</tr>
<tr>
<td>KRA 4 SG 4b and 4c KRA 5 SG 5b</td>
<td>8</td>
<td>A pilot project of community weather stations in TC Members</td>
<td>(i) Raise public awareness on climate change (ii) Offer an expert of Hong Kong, China for visiting Vietnam to implement the community weather station</td>
<td>WGM WGH</td>
<td>Assist in liaising with focal points</td>
<td>Fourth</td>
<td>ESCAP</td>
<td>(i) Weather station installed in two interested TC member US $4,000 TCTF</td>
<td>(i) Yes</td>
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</table>

**SG 1:** To enhance cooperation among TC Members to reduce the number of deaths by typhoon-related disasters by half (using the decade 1990-1999 as the base line to compare with the decade 2006-2015).

**SG 2:** To reduce the socio-economic impacts of typhoon-related disasters per GDP per capita by 20 per cent (using the decade 1990-1999 as the base line to compare with the decade 2006-2015).

**SG 3a:** To improve the beneficial use of typhoon-related effects of typhoons by 10 per cent in water management by selected Members (using the decade 1990-1999 as the base line to compare with the decade 2006-2015).

**SG 3b:** To promote increasing use of the typhoon-related beneficial effects among the Members

**SG 4a:** To provide reliable typhoon-related disaster information for effective policy making in risk management in various sectors.

**SG 4b:** To strengthen capacity of the Members in typhoon-related disaster risk management in various sectors

**SG 4c:** To enhance international and regional cooperation and assistance in the field of disaster risk reduction.

**SG 5a:** To promote and enhance culture of community-based disaster risk management among the Members

**SG 5b:** To promote education, training and public awareness of typhoon-related disasters among the Members

**SG 6a:** To strengthen RSMC capacity to respond to the needs of the Members in forecasting and capacity building

**SG 6b:** To improve capacity of Members to provide timely and accurate user-oriented and friendly TC products and information

**SG 6c:** To enhance capacity of Members' typhoon-related observation and monitoring

**SG 7a:** To strengthen the capacity of TCS to effectively discharge its responsibilities and functions described in the Terms of Reference and support the Members in the implementation of the strategic goals

**SG 7b:** To strengthen the capacity for resources mobilization for the implementation of the strategic goals
KRA 1: Reduced Loss of Life from Typhoon-related Disasters.
KRA 2: Minimized Typhoon-related Social and Economic Impacts.
KRA 3: Enhanced beneficial typhoon-related effects for the betterment of quality of life.
KRA 4: Improved Typhoon-related Disaster Risk Management in Various Sectors.
KRA 5: Strengthened Resilience of Communities to Typhoon-related Disaster.
KRA 6: Improved capacity to generate and provide accurate, timely and understandable information on typhoon-related threats.
KRA 7: Enhanced Typhoon Committee’s Effectiveness and International Collaboration.
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<tr>
<td>KRA 4 KRA 5 SG 4b SG 4c</td>
<td>1</td>
<td>Extending the WGTCIDS</td>
<td>(i) Collect disaster information from TC Members (ii) Upgrade the search option for similar Typhoon in WGTCDIS</td>
<td>TCS</td>
<td>(i) Provide guideline to support $1000 for collecting disaster information (ii) Assist in collecting disaster information from Members</td>
<td>Fourth</td>
<td>NDMI</td>
<td>(i) Complete collecting disaster information from Thailand, Philippines, USA and Cambodia (ii) Present various search option for finding similar Typhoon in WGTCDIS</td>
<td>US $4,000</td>
<td>NDMI, Korea and TCTF</td>
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<tr>
<td>KRA 4 KRA 5 SG 4b SG 4c SG 5b</td>
<td>2</td>
<td>Provide the training program</td>
<td>(i) Perform Expert Mission for training disaster prevention technologies and policies including WGTCDIS</td>
<td>TCS</td>
<td>Assist in planning and performing the expert mission</td>
<td>Fourth</td>
<td>NDMI</td>
<td>(i) Send expert team to four members of Lao PDR, Thailand, USA, and Viet Nam</td>
<td>US $ 7,000</td>
<td>NDMI, Korea and TCTF</td>
<td></td>
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<tr>
<td>KRA ALL SG ALL</td>
<td>3</td>
<td>Promote the international cooperation research</td>
<td>(i) Dispatch the experts of Korea and TCS for visiting Philippines to install the Flash Flood Alert System (FFAS) and AWS</td>
<td>WGH TCS</td>
<td>Assist in planning and performing the international cooperation research</td>
<td>Fourth</td>
<td>NDMI PAGASA</td>
<td>(i) Complete report on Northern Mindanao project</td>
<td>NDMI, Korea</td>
<td></td>
<td></td>
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<tr>
<td>KRA 4 SG 4b SG 4c KRA 5 SG 5b</td>
<td>4</td>
<td>Application of SWidget to Member countries</td>
<td>(i) Promote and extend the dissemination of warnings and alerts by Members through SWIC (Severe Weather Information Center)</td>
<td>-</td>
<td>Assist in liaising with focal points</td>
<td>Ongoing</td>
<td>WMO HKO</td>
<td>(i) Number of Members providing and using the warnings/alerts disseminated through SWidget</td>
<td></td>
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<tr>
<td>KRA 4 SG 4b SG 4c KRA 5 SG 5b</td>
<td>5</td>
<td>Setting up of community weather stations for raising public awareness on climate changes and extreme weather</td>
<td>(i) Liaise with Members on requirements and ways to take part in the project (ii) Offer an expert of Hong Kong, China for visiting Viet Nam and DPR Korea to implement the community weather stations</td>
<td>-</td>
<td>Assist in liaising with focal points ad provide logistic support for the expert visits</td>
<td>Fourth</td>
<td>HKO</td>
<td>(i) Weather stations installed in two interested TC member</td>
<td>US $6,000</td>
<td>TCTF</td>
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<td>KRA4, KRA5, KRA7, SG4b, SG5a, SG6b</td>
<td>6</td>
<td>Provide benefit evaluation of Typhoon disaster prevention and preparedness</td>
<td>(i) survey and evaluate the response of government, department, company and person to typhoon disaster (ii) survey and evaluate the benefit of different response</td>
<td></td>
<td>Assist in planning and performing the international cooperation research</td>
<td>Fourth</td>
<td>CMA, KMA, Macao, China, Hong Kong, China</td>
<td>Complete collecting response of government and departments, evaluation report finalized</td>
<td>From TCTF: US $2,000</td>
<td>CMA and TCTF</td>
<td></td>
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<td>KRA ALL, SG ALL</td>
<td>7</td>
<td>Support the Synergized Standard Operation Procedure (SSOP) project</td>
<td>WGM, WGH, TCS</td>
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SG1: To enhance cooperation among TC Members to reduce the number of deaths by typhoon-related disasters by half in the ten years of 2006 – 2015 (using the ten years of 1990 – 1999 as the base line).

SG2: To reduce the socio-economic impacts of typhoon-related disasters per GDP per capita by 20 per cent in the ten years of 2006- 2015 (using the ten years of 1990 - 1999 as the base line).

SG 3a: To identify and explore the beneficial use of resources such as rainfall brought by typhoon.

SG 3b: To study and promote the increasing use of typhoon-related beneficial effects among the Members.

SG 4a: To provide reliable typhoon-related disaster information for effective decision making in risk management in various sectors.

SG 4b: To strengthen capacity of the Members in typhoon-related disaster risk management in various sectors.

SG 4c: To enhance international and regional cooperation and assistance in the field of disaster risk reduction.

SG 5a: To promote and enhance culture of community-based disaster risk management among the Members.

SG 5b: To promote education, training and public awareness of typhoon-related disasters among the Members.

SG 6a: To facilitate RSMC capability to respond to the needs of the Members in forecasting and capacity building.

SG 6b: To improve capacity of Members to provide timely and accurate user-oriented and friendly tropical cyclone products and information.

SG 6c: To enhance capacity of Members' typhoon-related observation, monitoring, forecasting and warning.

SG 7a: To strengthen the capacity of Typhoon Committee to effectively discharge its responsibilities and functions described in this Strategic Plan and completed its stated mission in accordance with the Typhoon Committee's Statute.

SG 7b: To mobilize available resources and engage collaborators for the implementation of the strategic goals.

KRA 1: Reduced Loss of Life from Typhoon-related Disasters.

KRA 2: Minimized Typhoon-related Social and Economic Impacts.

KRA 3: Enhanced beneficial typhoon-related effects for the betterment of quality of life.

KRA 4: Improved Typhoon-related Disaster Risk Management in Various Sectors.

KRA 5: Strengthened Resilience of Communities to Typhoon-related Disaster.

KRA 6: Improved capacity to generate and provide accurate, timely and understandable information on typhoon-related threats.

KRA 7: Enhanced Typhoon Committee's Effectiveness, Efficiency and International Collaboration.