

ESCAP/WMO Typhoon Committee
Forty-eighth Session
22- 25 February 2016
Honolulu, Hawaii
USA

FOR PARTICIPANTS ONLY
WRD/TC.48/9.1
22 January 2016
ENGLISH ONLY

REPORT ON TCS ACTIVITIES IN 2015

(Submitted by TCS)

ACTION REQUIRED:

The Committee is invited:

- a) To take note of the major TCS activities in 2015
- b) To advise the improvement of the functions carried out by the Secretariat
- c) To approve the recommendations of TCS for 2016

APPENDICES:

- 1) DRAFT TEXT FOR INCLUSION AT SESSION REPORT
- 2) TCS ACTIVITIES REPORT 2015

APPENDIX A: DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT

9.1 Report of the Typhoon Committee Secretariat (agenda item 9.1)

9.1.1 The Committee took note of the report of the Typhoon Committee Secretariat.

9.1.2 The Committee noted with appreciation the TCS's activities 2015 in order to enhance support to Members, increase the role, contribution and visibility of Typhoon Committee, and to enhance transparency and improve efficiency as well as keeping Members informed on all matters of importance by using as many communications methods needed, including improvement of the TC Website. In this context, the Committee invited the TCS to take further measures and actions for transparency and for Members to be more involved.

9.1.3 The Committee expressed highly appreciation to the Government of the Macao Special Administrative Region of the People's Republic of China, and the Macao Meteorological and Geophysical Bureau for the continued support that has been given to the ESCAP/WMO Typhoon Committee Secretariat, which ensured the operations of TCS successful.

9.1.4 The Committee expressed appreciation to Members for their donation for the Typhoon Committee Trust Fund and in-kind contributions, and encourage Members to continue support activities of the Committee.

9.1.5 The Committee noted with appreciation the Members for their cooperation on SSOP project, and encourage continuing the support SSOP phase II to benefit all Members of the TC and PTC.

9.1.6 The Committee dealt with related issues under the relevant agenda items.

9.1.7 The Committee approved the recommendations submitted by TCS as expressed in paragraph XX.

Recommendations

Based on the experience of routine operation in 2015 and in the past years, and considering needs and possibility, TCS made the following recommendations to TC 48th Session for consideration:

- *To allocate US\$28,000 from TCTF for supporting overall TCS activities; US\$3,000 for supporting IWS hosting in 2016 and US\$2000 for IWS related activities;*
- *To express appreciations to Members for their donation for the Typhoon Committee Trust Fund and in-kind contributions, encourage Members to continue support activities of the Committee.*
- *To thank Macao Government for strong support to TCS in the past years, and for continuing hosting TCS for the 3rd term from 2015 to 2018, and for cooperating to renew and implement the Agreement between the Government of the Macao Special Administrative Region of the People's Republic of China and the ESCAP/WMO Typhoon Committee regarding Administrative, Financial and Related Arrangements for the Typhoon Committee Secretariat. During past year, Macao Government through SMG has supported the recurrent expenses of TCS about US\$583,000 including operating costs for maintaining the physical premises occupied by TCS, the office expenses, the facilities provisions and the staff cost.*

- *To thank Members for their cooperation on SSOP project and encourage continuing the support SSOP phase II to benefit all Members of the TC and PTC.*

(Additional text to be added in the light of discussion on this item)

APPENDIX B: TCS ACTIVITIES REPORT 2015

1. Introduction

In 2015, under the supervision of TC Chair and the AWG of the Committee, the Typhoon Committee Secretariat (TCS) made great efforts on maintaining the Committee mechanism running properly for fulfilling the decisions of 47th Session of the Committee which was held in Bangkok, Thailand, from 9 to 13 February 2015. With the strong support and kind cooperation from all Members, Working Groups, ESCAP and WMO, TCS endeavored to carry out its functions successfully in 2015 as the executive body of the Committee.

2. Execution of the Decisions of the Committee

- **Improving the communication with the Members**

As Requested by the Committee to improve the communication with the Members using as many communications methods needed, including improvement of the TC Website, TCS made a revamp in the TC Website in 2015 with the following changes:

- Provide real-time tropical cyclone warning information to Members by linking to WMO's Severe Weather Information Centre;
- Promote tropical cyclone knowledge and disaster risk prevention using videos;
- Migrate the Typhoon Forum of STI to TC Website to allow unblocked access;
- Establish a TC Forum as an additional announcement channel and encourage communication between the Members.

TCS also established a Facebook Page (<http://www.facebook.com/typhooncommittee>) in July as a social media channel for communication and publicity. The page was linked to TC Website and has attracted 1000 fans in a few months.

- Supporting AWG to develop a template for the Credential Letters and review current procedures
Under the guidance of AWG, TCS developed the example of Credential Letter, and submitted to AWG meeting in Kuala Lumpur.
- Supporting AWG for the Long-term Mechanism for TC Secretary
TCS provided the necessary assistants to the AWG Chair for finalize The Long-term Mechanism for TC Secretary.
- Supporting AWG to review the need for IWS to be organized on a yearly basis in relation to regular WG meetings/workshops
TCS supported AWG to review the need for IWS to be organized on a yearly basis in relation to regular WG meetings/workshops which was discussed in the AWG meeting of Kuala Lumpur in 2015.
- Preparing Guideline/Format for reporting the in-kind contributions and circulate to Members
Referring to the decision of TC47 session to request TCS together with the AWG to come up with a Guideline/Format for reporting the in-kind contributions and circulate to Members, TCS proposed the new format/guideline to AWG members. Based on the consultation with AWG members, a circular letter together with new format template

for in-kind contribution was sent in November 2015.

- Proceeding with confirmation of hosting for the 11th IWS with the Philippines and 49th Annual Session with Japan based on the mechanism adopted
The Philippines had confirmed the hosting for the 11th IWS. For the 49th Session of Typhoon Committee, response from Japan is still on wait. A letter to VietNam was also sent requesting confirmation of hosting for the 50th Session of TC.
- Kintanar Award
(There is no nomination until now.)
- SSOP Project phase II
Following the recommendation from 3rd Joint Session of TC and PTC: 'To develop a proposal for SSOP Phase II, based on the successful completion SSOP project, and submit to ESCAP for funding consideration', TCS drafted the proposal of SSOP-II and reported at the TC 10th IWS. Based on the comments from Members, TCS revised the documents and submitted to ESCAP for applying the 10th round of ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness in Indian Ocean and Southeast Asian Countries.

3. Coordination and Participation in the Activities of Annual Operation Plan Implementation

- **Participating in the 71st session of ESCAP**
71st Session of the Economic and Social Commission for Asia and the Pacific was held in Bangkok from 25-29 May, 2015. Mr. YU Jixin, on behalf Typhoon Committee Secretariat, attended the Session, and made a statement. He mentioned that the tropical cyclone is the most destructive weather system in our atmosphere. The Asia and Pacific is one of the regions over the world that is prone to tropical cyclones. The Typhoon Committee - TC, under the auspice of the UNESCAP and WMO, has been playing a unique role in reducing the loss of life and properties and minimizing social, economic, and environmental impacts by typhoon-related disasters. Over the past two years, the TC in partnership with the WMO/ESCAP Panel on Tropical Cyclones – PTC has been managing a project to develop harmonized multi-hazard operating procedures for early warning (SSOP), with financial support from the ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness. This successful project was ended in the month of May 2015. As part of the project, the TC and the PTC have enhanced their cooperation, which culminated in the 3rd joint session hosted by ESCAP in February this year. We are now working with the Regional Specialized Meteorological Centers of WMO to take forward the outcomes of the session, including joint training activities, research and projects.
- **First Organization Committee Meeting for EXOTICA**
The first Organization Committee (OC) meeting for EXOTICA was held in Shanghai on 9 October 2015. Establishment of various committees and the corresponding terms of reference were discussed, with summaries on the progress by CMA, HKO and JMA. A technical lecture by USA on the current progress of the field campaign on hurricane intensity change in USA was also delivered. A web site has been set up in TC website: <http://www.typhooncommittee.org/EXOTICA>.
- **Technology Transfer of the Typhoon Analysis and Prediction System**
The technology transfer of Typhoon Analysis and Prediction System (TAPS) was conducted for two Members in 2015:

- Lao PDR, 12-13 October 2015 and
- Thailand, 14-16 October 2015

Two experts from KMA met the Members to train the typhoon forecasters on the use of TAPS and provide follow-on technical assistance to the Members on the implementation of TAPS. The mission was completed successfully and reported in the 10th Integrated Workshop in Kuala Lumpur.

- **Research Fellowship Scheme in Shanghai Typhoon Institute**

A research fellowship scheme was offered by Shanghai Typhoon Institute (STI) on tropical cyclone genesis forecast technique. The objectives of the research were to develop techniques for tropical cyclone genesis forecast and implement them in STI's objective typhoon forecast system, and provide the forecast products to Members through WMO-TLFD's web site. The fellowship was offered to DPRK between 19 October and 18 November 2015.

- **10th Integrated Workshop**

The 10th Integrated Workshop (IWS) was held in Kuala Lumpur between 26-29 October 2015. TCS successfully coordinated the agreeable agenda, schedule of the working group's parallel meeting and collected the progress of all AOPs for review, as well as presentation of the members' reports. In the parallel session WG's successfully reviewed the progress of the POPs, AOPs and PPs in 2015 and planned for 2016. There were 89 participants in the IWS.

- **Roving Seminar 2015**

The Roving Seminar 2015 was held in Lao PDR between 4-6 November 2015 with the support of Department of Meteorology and Hydrology and the topic was "Flash Flood and Landslides". It was the first time that Members from Panel on Tropical Cyclones (PTC) were invited to the Seminar and there was a total of 22 participants from Bangladesh, Cambodia, China, Myanmar, Pakistan, Philippines, Lao PDR, Sri Lanka and Thailand. The lecturers came from China, Japan and Republic of Korea and the Seminar was warmly appreciated by the participants.

- **Technical Meeting on Radar Composite Map Project**

The technical meeting on radar composite map project was held in Thailand between 30 November and 4 December 2015. The project applied JMA's quality management technique using statistical method to each of TMD's radar to develop source codes of radar data calibration for QPE by TMD with the assistance of JMA. The technical meeting was a follow up with the progress and to identify a way forward.

- **Visiting Editors for Tropical Cyclone Research and Review in Shanghai Typhoon Institute**

Experts from USA and Vietnam were invited by Shanghai Typhoon Institute (STI) between 6-11 December 2015 and 14-18 December 2015, respectively to improve the influence of the Journal Tropical Cyclone Research and Review (TCRR) by providing guidance on editorial procedures, seeking and encouraging submission of articles from Members as well as international institutions, and accelerating publicity and promotional activities about the Journal.

- **WMO International Training Workshop on Tropical Cyclone Forecasting and Warnings**

With the kind invitation of government of China, an international training workshop on tropical cyclone forecasting and warnings was held in Nanjing between 7-11 December 2015 for TC Members. Members from China, DPRK, Republic of Korea, Lao PDR, Malaysia, Philippines, Thailand and Vietnam as well as Meteorologist of TCS attended

the workshop. The workshop was to assist Members in their efforts to improve operational tropical cyclone forecast and warning through providing training and knowledge updates to its forecasters.

- **Coordinating and participating in the 4th WGH working meeting**

The meeting was held successfully from 15 to 17 April 2015 in Daegu, the Republic of Korea in conjunction with the 7th World Water Forum (WWF) with about 41000 participants from the governments and other sectors of 168 countries and other governmental agencies, universities, private corporations and NGOs. WGH took the good opportunities to have shared the experience and strategies for flood damage prevention in the Committee at WWF, one of the largest international events, and consequently enhanced the visibility of the Committee in certain ways.

- **Coordinating 5th Guangxi Forum on Disaster Risk Reduction and Sustainable Development**

Mr. Thada SUKHAPUNNAPHAN of RID, Thailand was recommended by TCS as the representative of TC WGH to participate in the 5th Guangxi Forum on Disaster Risk Reduction and Sustainable Development, which was held in Nanning, China on September 21, 2015 with the objective of exchange the information on hydro-meteorological DRR between China-Association of Southeast Asian Nations (ASEAN).

- **Coordinating the wrap-up meeting of WGH AOP2**

The meeting for the project on Extreme Flood Forecasting System held in Busan, the Republic of Korea from 6 to 8 October 2015. Participants from Thailand, Laos, Philippines and the Republic of Korea jointed the meeting and field survey in Nakdong river basin.

- **Coordinating the activities related to OSUFFIM**

TCS played very active and important role in 2015 for coordinating the project on Development Operational System for Urban Flood Forecasting and Inundation Mapping (OSUFFIM) for TC Members, including: (1) assisting SYS University to apply funding of around 84,000USD from China Government provided to support the pilot study of OSUFFIM in China and Thailand. (2) coordinating the field surveys conducted in China and Thailand; (3) Coordinating one-month attachment training held in SYS University from November 15 to December 14, 2015 and sending TCS hydrologist to attend the opening ceremony.

- **Coordinating the 4-day job-training for WGH AOP5**

The job-training was held in Beijing from 15 to 18 December 2015 for Xin'anjiang model application in DID Malaysia, and TCS sent its hydrologist to attend the closing ceremony.

- **Participating in the Regional Workshop of GWP**

The Regional Workshop of on Flood Management organized by Global Water Partnership (GWP) in Guangzhou, China from 14 to 15 December 2015. TCS hydrologist was invited to give a presentation on the Session of Community-based approaches to flood forecasting and management.

- **Participation in the 3rd UNWCDRR**

WGDRR had successfully conducted a public forum by the topic as "Learning from the past disasters" at the 3rd United Nation World Conference on Disaster Risk Reduction, which was held in Sendai, Japan in March. This project was among AOPs 2015 of WGDRR that was led by NDMI and coordinated by TCS. Also, DRR expert of TCS took part in the mentioned public forum.

- **The 10th WGDRR Annual Workshop**

The workshop was held in Seoul, Republic of Korea in May. This is an important annual workshop for WGDRR that has been being conducted for 10 years that aims to exchange the information such as mechanism or technologies related to the field of DRR among the members, as well as follow-up on the progress of AOPs. This year, four members from TCS including new secretary Mr. Yu Jinxin were invited to attend the workshop. The workshop was hosted and organized by NDMI and coordinated by TCS.

- **Expert Mission**

The expert missions had been successfully conducted in Lao PDR and Vietnam in 2015 to provide information on the operation of TCDIS and exchange information regarding new technologies and policies related to the field of DRR by NDMI. This year, NDMI also dispatched their experts to Oman, the PTC member that should enhance the mechanism and extend the experience exchange on DRR between TC and PTC. The expert mission project has been being conducted by NDMI and coordinated by TCS.

- **iCowin Project**

This is a project led by Hong Kong, China to promote the setting up of community weather stations among Typhoon Committee Members for raising public awareness on climate change and extreme weather. This year, the participants from Thailand and DPR of Korea, totally three people fruitfully took part in this workshop and got a set of the equipment for setting up of the above-mentioned weather station in their countries. This workshop was successfully completed in early November to be hosted by Hong Kong and coordinated by TCS.

- **Benefit evaluation of Typhoon Disaster Prevention and Preparedness**

According to the decision of WGDRR at the 47th TC Session and 10th WGDRR Annual Workshop, WGDRR requested China to give a presentation about the details of this project so that members can understand how to join this project. After the coordination from TCS, China appointed a representative from CMA to make a presentation to satisfy the request from Working Group at the 10th IWS.

- **Coordinating the implementation of SSOP-I**

The Project on Synergized Standard Operating Procedures for Coastal Multi-hazard Early Warning System (SSOP) was first one in the Committee funded by ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness in Indian Ocean and Southeast Asian Countries and implemented by the Committee in cooperation with PTC. The project made the remarkable achievements and successfully terminated in May 2015. The main activities of SSOP conducted in 2015 include:

- Conducting two Consultancy Missions in PTC and TC Countries in January 2015, respectively, and submitted the two Reports for Missions on Hands-On Training and Technical Assistance on Interpretation, Preparation, and Improvement of SOPS for Users and Issuers.
- Conducting project evaluation and submitted the Evaluation Report and its Brief for SSOP project to ESCAP.
- Publishing the Manual and Quick Reference Guide on Synergized Standard Operating Procedures (SSOPs) for Coastal Multi-Hazards Early Warning System and distributed two publications to Members and related international/regional organizations.
- Conducting the project auditing and submitted the Audit Report for Synergized Standard Operating Procedures (SSOPs) for Coastal Multi-Hazards Early Warning

System Project.

- Submitted the Terminal Report for SSOP project to ESCAP.

4. The internal capacity building of TCS

- Under the coordinate and support of the TC Chair and the Macao Meteorological and Geophysical Bureau, the “Agreement between the Government of the Macao Special Administrative Region of the People’s Republic of China and the ESCAP/WMO Typhoon Committee Regarding Administrative, Financial and Related Arrangements for the Typhoon Committee Secretariat” has been updated since 3rd April, 2015.
- According to the Terms of Reference of Secretary of the Typhoon Committee, Paragraph 2 (The Secretary shall maintain and manage an adequate workforce in TCS for effective delivery of TCS output), and the Agreement Between the Macao Special Administrative Region of The People’s Republic of China and The ESCAP/WMO Typhoon Committee Regarding Administrative, Financial and Related Arrangements for the Typhoon Committee Secretariat, the Typhoon Committee Secretariat has been employed Mr. Clarence Fong Chi-kong in the position of Meteorologist of TCS since 1st June, 2015. The contract with Hydrologist of TCS has been updated since 1st April, 2015.
- Macao SAR Government maintained TCS Building from November to December.

5. Other Issues

- **Visit to TCS of Official of ESCAP**
Mr. Wang Keran, Chief of Space Applications Section of ESCAP, visited TCS office in 11 December 2015, where conversations were taken about the current status and the future cooperation between ESCAP and TC, mainly in what refers the enhancement of the cooperation between TC and PTC.
- **Assisting KMA in its International Internship Programme**
Following request from Korea Meteorological Administration (KMA), TCS accepted one intern from March to June 2015 working in TCS. The TCS Hydrologist was appointed as supervisor of the interns.
- **Moderating the 2015MIECF Event**
As the invitation of the Organization Committee of the Macao International Environmental Co-operation Forum & Exhibition, TC Secretary moderated the Session 3 – Strategizing Climate Change Mitigation – Innovation in Policy and Technology of the event.

6. Recommendations

Based on the experience of routine operation in 2015 and in the past years, and considering needs and possibility, TCS made the following recommendations to TC 48th Session for consideration:

- To allocate US\$28,000 from TCTF for supporting overall TCS activities; US\$3,000 for supporting IWS hosting in 2016 and US\$2000 for IWS related activities;
- To express appreciations to Members for their donation for the Typhoon Committee Trust Fund and in-kind contributions, encourage Members to continue support activities of the Committee.

- To thank Members for their cooperation on SSOP project and encourage continuing the support SSOP phase II to benefit all Members of the TC and PTC.