

IN-KIND CONTRIBUTION FROM TYPHOON COMMITTEE MEMBERS

(Item 16 of Provisional Agenda – In-kind Contribution)

(Submitted by Typhoon Committee Secretariat)

ACTION REQUIRED:

The Committee is invited:

To take note of the In-kind contributions from the Members

APPENDICES:

- 1) DRAFT TEXT FOR INCLUSION AT SESSION REPORT
- 2) SUMMARY AND LIST OF IN-KIND CONTRIBUTION FROM TYPHOON COMMITTEE MEMBERS

APPENDIX A:

DRAFT TEXT FOR INCLUSION IN THE SESSION REPORT

REPORT OF TYPHOON COMMITTEE SECRETARIAT

16.3.1 The Committee expressed appreciation for the in-kind contributions from some Members, namely China, Hong Kong, China; Japan, Malaysia, Philippine, Republic of Korea, Thailand and Viet Nam. The Committee also invited the other Members to report their in-kind contributions, quantifying the corresponding unit of Man-months that have consumed in actions related to TCTF projects. **(Appendix xxx).**

16.3.2 The Committee also expressed the importance of having in-kind contributions with correspondence values.

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

APPENDIX B:

IN-KIND CONTRIBUTION FROM TYPHOON COMMITTEE MEMBERS FOR 2019

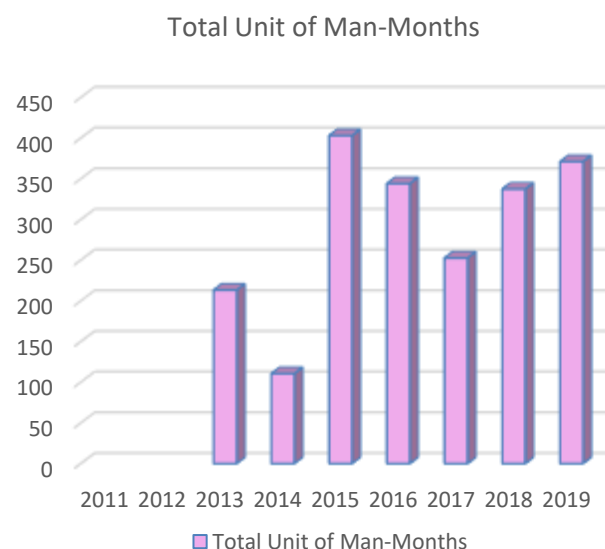
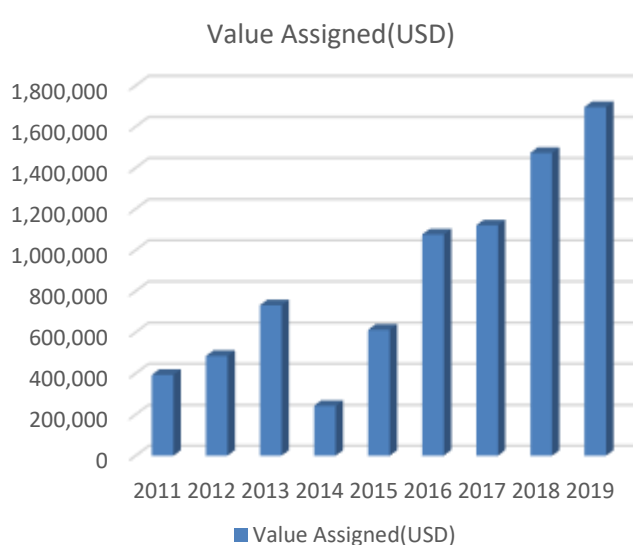
Total In-Kind Contributions for 2019

Total Value Assigned (USD): 1,695,601.05

Total Unit of Man-Months: 371.04

Member	Unit of Man-Months	Value Assigned(USD)	Remarks
China	151.67	726,817.15	
Hong Kong, China	4.60	5,100.00	
Japan	36.50	26,400.00	
Malaysia	8.55	12,450.00	
Philippines	3.82	2,235.90	
Republic of Korea	114.90	912,498.00	
Thailand	26.00	8,100.00	
Viet Nam	25.00	2,000.00	
Total :	371.04	1,695,601.05	

Annually In-Kind Contributions



In-Kind Contributions for 2019

Member Name: China

Activities Supported	Unit of Man-Months	Value Assigned (USD)	Comments
Host the 51st session in GUANGZHOU, China	25.00	175,386.00	Transportation, translation, accommodation, logistics, Venue and equipment rental fee and travel expenses for hosting the meeting.
Typhoon training on forecasting and monitoring in National Meteorological Centre-Beijing	10.00	16,778.00	Training, Logistics and transportation for 8 trainees during 10 days.
Roving Seminar 2019 in Beijing	10.00	500.00	2019 TC Roving Seminar in Beijing (Venue and equipment rental fees) for 3 days.
International Training Activities in WMO RTC-Beijing	15.00	140,000.00	Training, Logistics and transportation for 41 trainees from 9 TC Members in 5 training courses in the field of nowcasting, aeronautical meteorological services and meteorological satellite product application.
Training in the Typhoon Committee Training Centre (WMO RTC Nanjing)	10.37	48,686.00	Training, Logistics and transportation for totally 40 trainees from TC Members in 5 trainings; 1) 9 from LPDR for the Seminar on Use of Meteorological Satellite Products and Remote Sensing Technology for Countries along the Belt and Road (21 days, MOC-China Sponsorship); 2) 2 from DPRK Seminar on climate change and climate information service for developing countries (21 days, MOC-China Sponsorship); 3) 2 from DPRK for the seminar on technological transfer in coping with climate change for developing countries (21 days, MOC-China Sponsorship); 4) 1 from Thailand, 1 from Malaysia, and 1 from the Philippines for International Training Course on Modern Weather Forecast Technologies (12 days, CMA-Sponsorship); 5) 1 from Thailand for the International Training Course on the Assessment of Climate Change Impacts on Agriculture with Remote Sensing Technology (12 days, CMA-Sponsorship).
Benefit evaluation of Typhoon Disaster Prevention and Preparedness	0.80	120.80	Logistics.
The 12th China-Republic of Korea Joint Workshop on Tropical Cyclones	1.20	8,628.60	Transportation, logistics and travel expenses for meeting.
Publication of Tropical Cyclone Research and Review	24.00	65,351.88	Online submission system installation, Printing and Delivery expense for quarterly Journal
2nd Joint Project Meeting of WWRP Projects-EXOTICCA/TLFDP/UPDRAFT	2.00	6,217.29	Transportation, Logistics and Travel Expenses for meeting
POP3 Tropical Cyclone Research and Review	0.30	2,361.38	Served as Associate Editors in reviewing manuscripts
Tropical Cyclone Ensemble Forecast Information Webs	6.00	4,820.20	Replacement and maintenance of the server machine
World Meteorological Centre (Beijing) Website on Typhoon and Marine Weather Monitoring and Warning	6.00	71,668.00	Maintain and update forecast and model product websites
Support to Establish Typhoon International Training Platform	8.00	149,382.00	System installation and hardware configuration.

In-Kind Contributions for 2019

Member Name: China (2)

Activities Supported	Unit of Man-Months	Value Assigned (USD)	Comments
WGH-AOP4-OSUFFIM project related activities	20.00	25,000.00	OSUFFIM II project published the TC publication (TC/TD-No. 0017), 5 workshops/seminars (joint working), 7 expert missions with 11 person-times' field survey
WGH-AOP5-Impact Assessment of Climate Change on Water Resource Variability in TC Members	6.00	5,000.00	Two Seminars in Nanjing for Lao PDR and Malaysia in January and December and field survey in Laos and Malaysia.
Support to attend 8th WGH working meeting in Korea	2.00	1,597.00	Logistics, Stipend, Accommodation.
WGH-Support to attend 14th Integrated Workshop (IWS) in Guam	5.00	5,320.00	Logistics, Stipend, Accommodation.
Total :	151.67	726,817.15	

In-Kind Contributions for 2019

Member Name: Hong Kong, China

Activities Supported	Unit of Man-Months	Value Assigned	Comments
WGM - Assessment report on the impact of climate change on tropical cyclone in TC region	1.25		Provide an expert on literature review, assessment summary and the compilation of the assessment report
WGM - Contribution for the Experiment on Typhoon Intensity Change in Coastal Area (EXOTICCA) and Typhoon Landfall Forecast Demonstration Project (TLFDP)	0.75		<ul style="list-style-type: none"> - Provide support on collecting aircraft observations and collaborative research projects. - Provide support on development of tropical cyclone analysis and forecast techniques for TLFDP - Preparation and attendance of joint WMO workshop on EXOTICCA, UPDRAFT and TLFDP held in the Nanjing University in Sept 2019
WGM - Radar nowcasting based on RaINS/SWIRLS	1.00		<ul style="list-style-type: none"> - Provide technical support on the installation, configuration and use of Community SWIRLS - Review and implement development of RaINS / SWIRLS - Provide training for MMD on development of satellite nowcasting in SWIRLS - Conduct training workshop on RaINS/SWIRLS in MMD in Sept 2019
WGM - Web-based typhoon forum and CoDi platform	0.10		Provide support to conduct the trial and development, and to report progress of the CoDi platform with NMC/CMA
TRCG - Typhoon Committee Roving Seminar	0.75		<ul style="list-style-type: none"> - Provide support on planning the roving seminars, including sourcing of lecturers, coordinating with TCS and the local host China - Provide an expert to serve as a lecturer
TRCG - TC Research Fellowship	0.25	5,100.00	<ul style="list-style-type: none"> - Provide support on planning of the project and related logistic matters with TCS - Provide support to the awarded fellow from PASAGA regarding visa application and attachment
WGDRR - Making educational video related to DRR	0.50		<ul style="list-style-type: none"> - Provide support on adding English subtitles and voice over on one of the Observatory educational videos "Cool Met Stuff" with topic related to storm surge for sharing with Typhoon Committee Members to raise public awareness on typhoon disaster. The finalized video was uploaded to Typhoon Committee website as a WG DRR educational video in August 2019 - Provide support in preparing "clean" version of the video to Typhoon Committee Members to add subtitles and voice over in their languages
Total :	4.60	5,100.00	

In-Kind Contributions for 2019

Member Name: Japan

Activities Supported	Unit of Man-Months	Value Assigned (USD)	Comments
Host of the 2nd WGM Annual Session	4.00	9,200.00	Logistics and support of travel expenses for hosting 2nd WGM
Launching the communication platform	2.00	1,300.00	Establishment and maintenance of the platform.
Support for attachment training of two (2) forecasters to RSMC Tokyo - Typhoon Center	4.00	700.00	Logistics and preparation for lecture materials.
Publication of "Annual Report on the Activities of the RSMC Tokyo - Typhoon Center"	3.00	3,000.00	Edition, coordination and proofreading
Publication of "Technical Review"	2.00	200.00	Coordination and proofreading
Development and maintenance of the JMA Numerical Typhoon Prediction (NTP) website	5.00	-	Coordination, development and maintenance
Update of TOM	1.50	-	Coordination
Development of regional radar network	7.00	12,000.00	Lecture on radar composite map, and Quantitative Precipitation Estimation and Quantitative Precipitation Forecasting (QPE/QPF) Training on programming for radar composite maps Logistic arrangements and hosting a technical meeting Preparation for lecture materials on radar data quality techniques, composite maps, QPE/QPF Implementing experimental radar composite data exchange
Enhancing utilization of Himawari-8/9 products	1.00	-	Joint development of RDCA products Coordination
Storm Surge Watch Scheme	3.00	-	Development of a new storm surge model framework
Use of tropical cyclone ensemble forecast in the North-west Pacific region	3.00	-	Development of products using ensemble forecast maintenance of website.
Enhancement of disaster risk reduction against heavy rain in collaboration of AOP#7 of WGH	1.00	-	Provision of various NWP data to ICHARM for testing the effectiveness and coordination
Total :	36.50	26,400.00	

In-Kind Contributions for 2019

Member Name: MALAYSIA

Activities Supported	Unit of Man-Months	Value Assigned (USD)	Comments
MMD Hong Kong Observatory (HKO) expert, Guangxi Meteorological Administration (GMA) & Thai Meteorological Department (TMD) trainee visit to the Malaysian Meteorological Department (MET Malaysia) for training	0.03 (1 day)		Travel expenses, Accommodation, Meals are fully funded by the Typhoon Committee Research Fellowship Scheme 2019 for a total of USD 5,000
MMD HKO expert talk and discussion at a knowledge sharing session on nowcasting with MET Malaysia	0.03 (1 day)	50.00	HKO provided the training expertise while logistical expenses for training and presentation facility as well as transport were borne by MET Malaysia
MMD Project & training brief for participants of the GMA & TMD trainees	0.03 (1 day)	50.00	Training expertise & office workspace provided by MET Malaysia
MMD Lecture on the Introduction to the MET Malaysia RaINS Nowcasting System as well as the concept of SWIRLS (Short-range Warning of Intense Rainstorms in Localized Systems - developed by the HKO)	0.06 (2 day)	100.00	Training facilities & expertise furnished by MET Malaysia
MMD Hands-on Training on decoding, regridding & interpolating radar & numerical weather prediction (NWP) data of GMA & TMD	0.06 (2 day)	100.00	MET Malaysia provided the personnel, space and facility for training
MMD Verification of RaINS nowcast during extreme cases in GMA & TMD	0.03 (1 day)	50.00	Verification training, computation power to run RaINS nowcast are fully provided by MET Malaysia
MMD Presentation of training outcome, as well as Q & A with MET Malaysia experts	0.06 (2 day)	100.00	Presentation facility provided by MET Malaysia while participants from the GMA & TMD shared their nowcasting experience and case study
DID Support TC AOP4 Expert's from SYS China in data collection at Pilot study catchment	1.00	2,500.00	Transportation, Logistics and Travel Expenses for 2 times field survey
DID Support TC AOP6 Expert's from MLIT and IDI, Japan in data collection and meeting at Pilot study catchment	1.00	2,500.00	Transportation, Logistics and Travel Expenses for 2 times field survey
DID Support TC AOP6 Expert's from KICT and HRFDO, Korea in data collection and meeting at Pilot study catchment	0.50	1,500.00	Transportation, Logistics and Travel Expenses for field survey
DID Support to attend the WGH meeting and other international activities for AOP2, AOP4, AOP5	1.50	2,000.00	Transportation, Logistics and Travel Expenses
DID Data preparation and analysis for AOP2, AOP4, AOP5 and AOP6	2.00	1,500.00	Preparation on hydrological data and other information including hydrological analysis
DID Support to attend Integrated Workshop (IWS) and other activities	0.25	500.00	Transportation, Logistics and Travel Expenses for IWS
DID Preparing the Country Report 2017/2018	1.00	1,000.00	Annual report on hydrological activities in Malaysia
DID Preparing the report for Working Group Hydrology Activities of AOP4 and AOP5	1.00	500.00	Final Report of AOP4 & AOP 5 Project
Total :	8.55	12,450.00	

*Malaysia Meteorological Department (MMD)

*Department of Irrigation and Drainage (DID)

Member Name: Philippines

Activities Supported	Unit of Man-Months	Value Assigned (USD)	Comments
AOP 7: Resilience and Disaster under IFI with TC-WGH			
Meeting in the Philippines: TC-WGH Meeting, Re: Discussion for the Activities and Plans for AOP 7 (Platform on Water Resilience and Disaster under IFI) led by Japan on 08 February 2019.	0.27	58.90	2) Time spent in attending the meeting. 3) Support the hosting of the meeting
AOP 4: OSUFFIM Project Phase II Meeting in Davao City: OSUFFIM Phase II Project Proponents (China and the Philippines) meeting with LGU of Davao City and the Office of the Civil Defense. Also conducted site survey for the pilot river systems. The activity was conducted on 12-16 August 2019.	1.14	98.00	2) Time spent in: Travel (Manila-Davao-Manila); Attending the meeting with the local government unit and the Office of Civil Defense; and, Site inspection. 3) Support in the conduct of meeting and other logistics.
TC-WGH Meeting held in Korea: Attended the 8th TC-WGH Meeting on 14-16 October 2019	0.23		2) Time spent in attending the meeting.
International Workshop held in Guam: Attended the 14th ESCAP/WMO Typhoon Committee IWS on 4-8 November 2019	0.45		2) Time spent in attending the meeting.
AOP 4: OSUFFIM Project Phase II Meeting in Quezon City: OSUFFIM Phase II Project Proponents (China and the Philippines) meeting on 16-17 December 2019.	0.41	39.00	2) Time spent in attending the meeting. 3) Support the hosting of the meeting
AOP 2: Application of Hydrological Data Quality Control System:			
Philippine Venue: AOP 2 Meeting held in Quezon City, Philippines attended by TC-WGH Member Countries. Visit to some hydrological monitoring stations was also conducted. This activity was conducted on 25-26 November 2019. This was the first part of the meeting.	1.32	2,040.00	2) Time spent in attending the meeting. 3) Support the hosting of the meeting
Thailand venue: AOP 2 Meeting held in Thailand on 27-29 November 2019.			
Total :	3.82	2,235.90	

In-Kind Contributions for 2019

Member Name: Republic of Korea

Activities Supported	Unit of Man-Months	Value Assigned (USD)	Comments
[KMA] Research Fellowship of TRCG	3.00	6,098.00	Travel Expenses and per diem for 2 typhoon experts for 4 weeks
[KMA] Development of Typhoon Seasonal Prediction System	12.00	-	Operation and improvement of web-portal for typhoon seasonal prediction
[KMA] Technology transfer of the Typhoon Operation System (TOS)	0.75	-	Implementation of TOS to Macao for 3 persons for 3 days
[HRFCO] TC 1st Expert Mission regarding the implementation on TC WGH's AOP2 and AOP3 (visiting Malaysia and Lao PDR)	6.00	5,600.00	Travel Expenses for the representatives from Lao PDR, Malaysia and Thailand
[HRFCO] TC 2nd Expert Mission regarding the implementation on TC WGH's AOP2 and AOP3 (visiting the Philippines and Thailand)	6.00	8,000.00	Travel Expenses for the representatives from Malaysia, the Philippines and Thailand
[HRFCO] Hosting the 8th Meeting of TC WGH	4.00	5,500.00	Logistics for Organizing the Meeting
[HRFCO] Support to attend 8th Meeting of TC WGH	2.00	15,000.00	Travel Expenses for 12 Members' representatives and the delegation from TCS
[HRFCO] Support to attend the 14 IWS	2.00	2,400.00	Travel Expenses for the delegation from Lao PDR
[HRFCO] Establishment of the direction for developing the hydrological data quality control system in TC members	16.00	-	Designing the Schematic System in a Draft Version
[HRFCO] Modification of the Extreme Flood Forecasting System	4.00	-	Modification of the System's Module for Application Expansion
[HRFCO] Draft version of a guideline for the national hydrological quality control	4.00	6,000.00	Developing a Draft of Guidance and Narrative Review by a Native Speaker
[NDMI] Hosting the 14th WGDRR annual meeting	3.00	45,700.00	Accommodation, Logistics, and Travel Expenses for 14th WGDRR Annual Meeting
[NDMI] Promote International Cooperation on DRR Project	52.15	818,200.00	Construct Flash Flood Alert System(FFAS) and Automatic Rainfall Warning System(ARWS) in Lao PDR and Vietnam
Total :	114.90	912,498.00	

*Korea Meteorological Administration (KMA)

*Han River Flood Control Office (HRFCO)

*National Disaster Management Institute (NDMI)

In-Kind Contributions for 2019

Member Name: Thailand

Activities Supported	Unit of Man-Months	Value Assigned (USD)	Comments
TMD supported 7 staff to serve as experts team in Development of regional radar network (AOP3)	12.00		
RID supported to attend the Integrated Workshop (IWS)	6.00	4,300.00	Transportation, Logistics, Travel Expenses and Daily Expenses for IWS
RID supported to attend the Working Group Meeting (WGH)	4.00	2,800.00	Transportation, Logistics, Travel Expenses and Daily Expenses for WGH
RID supported the AOP2, AOP3 field survey in Chiang Mai, Thailand	4.00	1,000.00	Transportation and Logistics
Total :	26.00	8,100.00	

*Thai Meteorological Department (TMD)

* Royal Irrigation Department (RID)

In-Kind Contributions for 2019

Member Name: Viet Nam

Activities Supported	Unit of Man-Months	Value Assigned (USD)	Comments
Hosting of the working meetings related to the OSUFFIM project field visit, from 20-23 September 2019 in Viet Nam	10.00	800.00	Transportation, Logistics and other activities
Hosting of Typhoon Committee's SSOP-II Project Consultation Workshop, Ha Noi, Viet Nam, from 26-27 Sept, 2019	15.00	1,200.00	Transportation, Logistics and other activities
Total :	25.00	2,000.00	