

WORLD METEOROLOGICAL ORGANIZATION

RA IV/HC-41/Doc. 8
(22.III.2019)

RA IV HURRICANE COMMITTEE

FORTY-FIRST SESSION

ITEM: 8

WILLEMSTAD, CURAÇAO

18 TO 22 MARCH 2019

Original: ENGLISH

**ASSISTANCE REQUIRED FOR THE IMPLEMENTATION OF THE COMMITTEE'S
TECHNICAL PLAN AND THE STRENGTHENING OF THE OPERATIONAL PLAN**

(Submitted by the Secretariat)

Summary and Purpose of Document

This document presents a review of assistance, pertinent to the implementation of the Technical Plan or strengthening of the Operational Plan, provided to Members since the Committee's Fortieth session and indicates the plan for future action. Appendix lists activities and project implementation under VCP in 2016, as well as requests pending for support in future.

ACTION PROPOSED

The Hurricane Committee is invited to review assistance requirements for future implementation of the Technical Plan in the light of activities implemented with national funds or through external assistance projects. Members are encouraged to vigorously pursue their action in seeking support for possible implementation of outstanding activities.

- Appendices:**
- A Draft text for inclusion in the final report of the session
 - B List of VCP projects related to WMO Members from RA III and RA IV for the years 2013 to 2018

DISCUSSION

1. The World Meteorological Organization (WMO), through the Development and Regional Activities Department (DRA) and with the support of the WMO Office for North America, Central America and the Caribbean (NCAC), has continued the development of technical cooperation activities to ensure cost-effective services to Members. The NCAC Office has also provided support to regional activities and assisted in the implementation of WMO Programmes in the Region.

Regional Activities

2. During 2018 WMO continued providing assistance to support the National Water Commission (Conagua) within the context of the agreement between the WMO and the Government of Mexico. Activities were carried out to conclude the execution of PREMIA (Strengthening Integrated Water Management in Mexico) and MOMET (Modernization of the NMS of Mexico) projects. As per request from the Government of Mexico, an initial concept note was also prepared delineating the priority areas for the cooperation and technical assistance that will be provided to Mexico in the period 2019-2024.

3. The Directors of Ibero-American NMHSs continued to support activities in RA III and RA IV with the implementation of its action plan for the period 2018-2020. The main lines of action of the three-year plan include: institutional strengthening of NMHS and resource mobilization; weather, climate and hydrological services; and education and training.

4. Strong support has been provided by WMO to the RA IV Working Group on Hydrology (WGH) to organize: face-to-face meetings (11th Meeting of the RA IV WGH, Kingston, Jamaica, 23-25 January 2018), virtual coordination meetings (1st Coordination Teleconference of the RA IV WGH, 13 June 2018) and virtual technical meetings (Regional Teleconference on Seasonal Hydrological Prediction addressed to Permanent Representatives and Hydrological Advisers of RA IV, 13 and 15 November 2018; Teleconference on GEOGLOWS, 3 December 2018). This support extends to the strengthening of the collaboration between RCOFs and the Regional Hydrology Outlook Forums, in particular in Central America, in order to produce operational Seasonal Hydrological Outlooks.

5. The Meeting of the RA IV Task Team on Disaster Risk Reduction (DRR) was held in San Jose, Costa Rica, from 6 to 7 December 2018. The main outcome of this meeting was an Implementation Plan on DRR for the RA IV.

6. During 2018 two virtual meetings of the RA IV Task Team on WIS/WIGOS were held to discuss the implementation of National WIGOS Implementation Plans in the Region, on 13 June 2018 and 11 September 2018.

7. The Climate Risk and Early Warning Systems (CREWS) initiative was launched in 2018 in the Caribbean and Mexico, and is currently under implementation.

Training

8. The OSCAR/Surface training course for RA IV was held in Havana, Cuba, from 28 to 31 May 2018.

9. The Central America Flash Flood Guidance System (CAFFGS) Regional Operations Training Workshop (Step 4) was held in San Jose, Costa Rica, from 25 to 26 July 2018.

10. The RA IV Workshop on Hurricane Forecasting and Warning will take place in Miami, U.S.A, from 29 April to 10 May 2019. This very important workshop is organized on an annual basis at the National Hurricane Centre, with strong support of WMO and the U.S.A. Experts

from some RA IV Members also benefited from the Ninth International Workshop on Tropical Cyclones (IWTC-9) held in Honolulu, USA, from 3 to 7 December 2018.

11. The Final Training Workshop on the Coastal Inundation Forecasting Demonstration Project (CIFDP) was held in Santo Domingo, Dominican Republic, from 3 to 7 December 2018.

12. WMO, through the trust fund from Spain, continued to support several activities during 2018, including courses on automatic weather stations maintenance, data processing, climate change, administration of meteorological and hydrological services, flood and drought management, seasonal forecast, hydrology, statistic forecast tools, use of forecast products and satellites and other topics. Additionally, a series of seminars and workshops were also supported especially in hydrological forecast, seasonal forecast, coastal flooding, and telecommunications interaction. Several countries in RA IV have already benefited from the open source MCH information (database) system provided by the Conference.

13. The Master's Degree Programme in Hydrology, with strong distance and computed aided learning components, has continued with great success at the WMO/RTC of Costa Rica, with the participation of students from RA IV countries.

Assistance to NMHS

14. The "Haiti Weather Systems Programme - Climate Services to Reduce Vulnerability in Haiti" project, funded by Canada, continues to be implemented. The five-year project aims to develop the capacity of the National Meteorological and Hydrological Services (NMHS) of Haiti to deliver Early Warnings and also general weather, climate and hydrological services to the people of Haiti. Updated activities of the project up to February 2019 include:

- The construction of the Hydrometeorology Unit (UHM) building was completed in May 2017.
- During 2018, the activities developed focused on the implementation of the Technical Assistance Package (TAP) implemented by Meteo France International, which includes the provision of the equipment and software necessary to generate weather forecasts, emission of alerts and dissemination to the general public. In the framework of the TAP, an AWOS-type station was installed at the Port-au-Prince airport, and equipment and software of the SYNERGIEWEB, TRANSMET, OBSMET and AEROMETWEB systems were installed.
- After the completion of the implementation of the TAP, and resolved logistical problems of internet access, the process of occupying the constructed building was completed.
- Thanks to the collaboration with the INSMET of Cuba, the network of observation stations has continued to be monitored and maintained, and the SISMAT information concentration program has been updated. Also with the support of INSMET, a GEONET CAST system has been installed.
- An intense advocacy work has been carried out with the Haitian authorities in order to assure the UHM of the human and financial resources necessary for the development of its functions. Important coordination was carried out with partner agencies and organizations, such as the World Bank.
- The sustainability of the project and of the UHM, highly dependent on the active participation and support of the Haitian Government, is still not fully guaranteed. Therefore, WMO mediation will continue to be a very important factor in the short and medium terms.
- During this period, the final evaluation of the project was carried out by an evaluation team external to WMO. The results will be available as of March 2019. The closing of the project office is expected to take place on 31 March 2019.

15. The Spanish Agency for International Development Cooperation (AECID), with funds provided by the European Union and with the Spanish Meteorological Agency (AEMET) as implementing institution, is currently installing a lightning detection network in Central America. AECID-AEMET are also supporting a project for the generation of Climate Change scenarios in Central America, for which a training on climate data rescue and data quality analysis were offered to the NMHSs during 2018, and the MCH Information and Database System was implemented, where it was required.

16. With the support of the NOAA-NWS from the United States, Costa Rica, El Salvador and Guatemala are at an advanced stage in the implementation of a Weather Ready Nations initiative.

VCP Projects

17. During 2018 WMO continued providing assistance to NMHSs through the VCP Programme. Two request were received from NMHSs in the Region. A list of VCP projects carried out for 2013 through 2018 related to the Members of RA III and IV is given in Appendix B.

DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT OF THE SESSION

1. The Committee expressed its satisfaction that WMO, through the Development and Regional Activities Department (DRA) and with the support of the WMO Office for North America, Central America and the Caribbean (NCAC), has continued the development of technical cooperation activities to ensure cost-effective services to Members. The NCAC Office has also provided support to regional activities and assisted in the implementation of WMO Programmes in the Region.

Regional Activities

2. During 2018 WMO continued providing assistance to support the National Water Commission (Conagua) within the context of the agreement between the WMO and the Government of Mexico. Activities were carried out to conclude the execution of PREMIA (Strengthening Integrated Water Management in Mexico) and MOMET (Modernization of the NMS of Mexico) projects. As per request from the Government of Mexico, an initial concept note was also prepared delineating the priority areas for the cooperation and technical assistance that will be provided to Mexico in the period 2019-2024.

3. The Directors of Ibero-American NMHSs continued to support activities in RA III and RA IV with the implementation of its action plan for the period 2018-2020. The main lines of action of the three-year plan include: institutional strengthening of NMHS and resource mobilization; weather, climate and water services; and education and training.

4. Strong support has been provided by WMO to the RA IV Working Group on Hydrology (WGH) to organize: face-to-face meetings (11th Meeting of the RA IV WGH, Kingston, Jamaica, 23-25 January 2018), virtual coordination meetings (1st Coordination Teleconference of the RA IV WGH, 13 June 2018) and virtual technical meetings (Regional Teleconference on Seasonal Hydrological Prediction addressed to Permanent Representatives and Hydrological Advisers of RA IV, 13 and 15 November 2018; Teleconference on GEOGLOWS, 3 December 2018). This support extends to the strengthening of the collaboration between RCOFs and the Regional Hydrology Outlook Forums, in particular in Central America, in order to produce operational Seasonal Hydrological Outlooks.

5. The Meeting of the RA IV Task Team on Disaster Risk Reduction (DRR) was held in San Jose, Costa Rica, from 6 to 7 December 2018. The main outcome of this meeting was an Implementation Plan on DRR for the RA IV.

6. During 2018 two virtual meetings of the RA IV Task Team on WIS/WIGOS were held to discuss the implementation of National WIGOS Implementation Plans in the Region, on 13 June 2018 and 11 September 2018.

7. The Climate Risk and Early Warning Systems (CREWS) initiative was launch in 2018 in the Caribbean and Mexico, and is currently under implementation.

Training

8. The OSCAR/Surface training course for RA IV was held in Havana, Cuba, from 28 to 31 May 2018.

9. The Central America Flash Flood Guidance System (CAFFGS) Regional Operations Training Workshop (Step 4) was held in San Jose, Costa Rica, from 25 to 26 July 2018.

10. The RA IV Workshop on Hurricane Forecasting and Warning will take place in Miami, U.S.A, from 29 April to 10 May 2019. This very important workshop is organized on an annual basis at the National Hurricane Centre, with strong support of WMO and the U.S.A. Experts

from some RA IV Members also benefited from the Ninth International Workshop on Tropical Cyclones (IWTC-9) held in Honolulu, USA, from 3 to 7 December 2018.

11. The Final Training Workshop on the Coastal Inundation Forecasting Demonstration Project (CIFDP) was held in Santo Domingo, Dominican Republic, from 3 to 7 December 2018.

12. WMO, through the trust fund from Spain, continued to support several activities during 2018, including courses on automatic weather stations maintenance, data processing, climate change, administration of meteorological and hydrological services, flood and drought management, seasonal forecast, hydrology, statistic forecast tools, use of forecast products and satellites and other topics. Additionally, a series of seminars and workshops were also supported especially in hydrological forecast, seasonal forecast, coastal flooding, and telecommunications interaction. Several countries in RA IV have already benefited from the open source MCH information (database) system provided by the Conference.

13. The Master's Degree Programme in Hydrology, with strong distance and computed aided learning components, has continued with great success at the WMO/RTC of Costa Rica, with the participation of students from RA IV countries.

Assistance to NMHS

14. The "Haiti Weather Systems Programme - Climate Services to Reduce Vulnerability in Haiti" project, funded by Canada, continues to be implemented. The five-year project aims to develop the capacity of the National Meteorological and Hydrological Services (NMHS) of Haiti to deliver Early Warnings and also general weather, climate and hydrological services to the people of Haiti. Updated activities of the project up to February 2019 include:

- The construction of the Hydrometeorology Unit (UHM) building was completed in May 2017.
- During 2018, the activities developed focused on the implementation of the Technical Assistance Package (TAP) implemented by Meteo France International, which includes the provision of the equipment and software necessary to generate weather forecasts, emission of alerts and dissemination to the general public. In the framework of the TAP, an AWOS-type station was installed at the Port-au-Prince airport, and equipment and software of the SYNERGIEWEB, TRANSMET, OBSMET and AEROMETWEB systems were installed.
- After the completion of the implementation of the TAP, and resolved logistical problems of internet access, the process of occupying the constructed building was completed.
- Thanks to the collaboration with the INSMET of Cuba, the network of observation stations has continued to be monitored and maintained, and the SISMAT information concentration program has been updated. Also with the support of INSMET, a GEONET CAST system has been installed.
- An intense advocacy work has been carried out with the Haitian authorities in order to assure the UHM of the human and financial resources necessary for the development of its functions. Important coordination was carried out with partner agencies and organizations, such as the World Bank.
- The sustainability of the project and of the UHM, highly dependent on the active participation and support of the Haitian Government, is still not fully guaranteed. Therefore, WMO mediation will continue to be a very important factor in the short and medium terms.
- During this period, the final evaluation of the project was carried out by an evaluation team external to WMO. The results will be available as of March 2019. The closing of the project office is expected to take place on 31 March 2019.

15. The Spanish Agency for International Development Cooperation (AECID), with funds provided by the European Union and with the Spanish Meteorological Agency (AEMET) as implementing institution, is currently installing a lightning detection network in Central America. AECID-AEMET are also supporting a project for the generation of Climate Change scenarios in Central America, for which a training on climate data rescue and data quality analysis were offered to the NMHSs during 2018, and the MCH Information and Database System was implemented, where it was required.

16. With the support of the NOAA-NWS from the United States, Costa Rica, El Salvador and Guatemala are at an advanced stage in the implementation of a Weather Ready Nations initiative.

VCP Projects

17. During 2018 WMO continued providing assistance to NMHSs through the VCP Programme. Two request were received from NMHSs in the Region. A list of VCP projects carried out for 2013 through 2018 related to the Members of RA III and IV is given in Appendix B.

**LIST OF VCP PROJECTS RELATED TO WMO MEMBERS FROM RA III AND RA IV
FOR THE YEARS 2013 TO 2018**

Country	Title / Focus	Support	Year of Request	Completed
Belize	Purchase of Upgrade to the METLAB data acquisition/ display platform	VCP (F)	2013	2014
Dominica	Emergency Assistance – Equipment for Main Airport	USAID	2015	2016
Guatemala	Training on the interpretation of radar images	Cuba / VCP (F)	2015	2016
Guyana	Expert assistance to develop long term strategic plan for Hydrometeorological Service in Guyana	VCP (F)	2013	2014
Guyana	Expert from RTC Brasilia or Argentina to implement the new RA III VPN telecommunications network	VCP (F)	2013	Ongoing
Jamaica	Data Rescue of Climatological Data from Microfiche tapes	GFCS	2015	2018
Paraguay	Expert services – Strengthening National Hydrological Services in Paraguay	VCP (F)	2013	2014
Trinidad and Tobago	Strategic Plan for the Meteorological Services of the Ministry of the Environment and Water Resources	VCP (F)	2015	2015
Guyana	Update of the Strategic Plan of the Hydrometeorological Service of Guyana and Design of a Roadmap for the Strengthening of Groundwater Monitoring	VCP (F) / CLW	2018	Ongoing
Guyana	Implementation and training on the MCH Information and Database System	N/A	2018	N/A

Ref.: 06943/2019_1.1 WDS/TCF
Approved by Xu Tang, Tue Mar 05 09:49:13 UTC 2019