

World Meteorological Organization Meeting of Heads of Regional Training Centres Barbados, 2 November 2017

Annotated Agenda

09.00-09.30

1: Welcome and introduction-

The meeting will be opened by a representative of the host country. The WMO Assistant Secretary General, Dr W. Zhang, will be invited to make his opening remarks. Representatives of training institutions will be invited to make brief comments.

09.30-10.00

2. Update on WMO activities with emphasis on Education and Training and reports on activities of RTCs

Director, ETR Office, Dr Yinka Adebayo, will refer the meeting to the reports (already in our Moodle site, see <http://etrp.wmo.int/moodle/course/view.php?id=137#section-5>) on WMO activities and activities of the RTCs with emphasis on education and training. Participants will be invited to comment on how to improve on exchange of information and reporting.

10.00-10.30 Coffee/Tea Break

10.30-11.00

3. Presentation on Management Training

There will be a short presentation on management training, which is expected to attract brief comments and some recommendations.

11.00-12.30

3 The evolving roles and activities of WMO RTCs

The reports presented under Agenda Item 2 and 3, the outcomes of SYMET-XIII and a WMO document (see <http://etrp.wmo.int/moodle/course/view.php?id=137#section-5>), will form the basis for discussions on the following issues:

- i) Management and strategic planning,
- ii) Exchange of resources and relationships among RTCs, and with other training institutions in their respective regions;
- iii) Programme development and relationships with WMO technical programmes and other affiliate institutions
- iv) Feasibility of the WMO Global Campus, legal implications, and impacts on RTCs and the quality of training in meteorology and hydrology together with the related geosciences.
- v) Use of the new “Guide to the Management and Operation of WMO Regional Training Centres and Other Training Institutions” (WMO-No. 1169)
- vi) Programme development to support competencies and qualifications (WMO-No.49 Vol I, part V),
- vii) Resource mobilization and support to fellowships and training,
- viii) National, regional and global training responsibilities/undertakings, including interactions with Regional Associations,
- ix) Maintenance of standards, performance evaluation and external review,
- x) Reporting to WMO and public outreach,
- xi) Challenges facing RTCs in a world faced with rapid evolutions in technology and demands for user-oriented services ,
- xii) Research and development as a means for improving services and further understanding of the global climate system, and
- xiii) Future directions.

12:30 – 14:00 Lunch Break

14.00-15.30

- 4. Continuation of discussions on the evolving roles and activities of WMO RTCs and training partners**

15:30 – 16:00 Coffee/Tea Break

16.00-17.00

- 5- Continuation of discussions on the evolving roles and activities of WMO RTCs and training partners**

17.00-17.30

- 5- Conclusions, Recommendations and Way forward**

The discussions will focus on developing conclusions, recommendations, way forward and action plan based on the document presented for discussion.

- 6 Closing**

The D/ETR and the host shall make closing remarks.

Draft outcome of the World Meteorological Organization Meeting of Heads of Regional Training Centres, Barbados, 2 November 2017

1. Opening

The meeting was opened by the Coordinating Director of the Caribbean Meteorological Organization (CMO). He welcomed the participants to Barbados and wished them a successful meeting.

In his opening remarks, on behalf of Secretary-General of WMO, Dr Yinka Adebayo (Director/ETR) indicated the commitment of the Secretary-General to the support to education and training programme as an essential element for capacity development to improve the production and delivery of the highly needed quality meteorological and hydrological services to enable society address the challenges of climate variability and change. He encouraged the participants to come up with actionable recommendations to improve the implementation of education and training programme.

2. Update on WMO activities

The Director, ETR Office, Dr Yinka Adebayo, presented a report outlining WMO activities with emphasis on education and training. He informed the meeting that one of the missions of WMO is to promote the application of new science and technology in operational meteorology, climate services, hydrology, and related service areas to enhance Members' capabilities to protect the lives and properties of their communities from severe weather and extreme climate events. He reminded the participants of the decision of WMO members to focus their attention on several key initiatives deemed necessary to strengthen Members' National Meteorological and Hydrological Services (NMHSs) and enable developments for their continued and increased effectiveness into the future. The areas of focus include WMO Integrated Global Observing System (WIGOS); WMO Information System (WIS); Impacts-based Forecasting and Warning Services; Multi-hazard Early Warning Systems (MHEWS) and Disaster Risk Reduction; Seamless Global Data Processing and Forecast System

(S/GDPFS); WMO Service Delivery Strategy; Climate Services; Hydrology and water resources; Emerging and related service areas; and WMO Competency Frameworks.

The report also highlighted the challenges, trends, and emerging issues as a general process for the implementation of current innovations, which included assessing learning needs, alternative learning sources, cultural changes in learning, online and self-directed learning, gamification and simulations, and competency based learning. The meeting was informed that all training providers for WMO Members are critical partners in the implementation of the initiatives being driven by the Technical Commissions and guided by the Secretariat technical departments.

The meeting considered the report and made the following observations.....

The meeting made the following recommendations.....

3. Report on activities of RTCs

The D/ ETR presented a report on the activities of the RTCs based on the information made available to WMO Secretariat. The report focused on the education and training programmes of RTCs, including comments on information needed by WMO to update the profiles of RTCs. The discussions focused on common issues and opportunities for closer working relationships between RTCs.

The meeting noted that in 2016, the combined RTCs offered 161 short courses addressing continuing education and training needs. Over 2,629 foreign students were served by the RTCs in 2016 for both Fellowships and continuing education. In addition to diploma programmes, most of the RTCs have been very proactive in developing and delivering courses to address WMO focus areas, including recent courses on weather forecasting, climate services, disaster risk reduction, aeronautical meteorology, and improving weather and climate observations. All RTCs are encouraged to design continuing education courses in concert with the advice of WMO technical programmes, including the WMO competency frameworks, to ensure consistency with their latest guidance.

The meeting noted further that many RTCs and other training centers provide substantial support to developing countries for fellowships and short-term training. This support is in the form of waiving tuition fees, local expenses, and in some cases air ticket support. RTCs in Argentina, China, Egypt, India, Russia provided support to fellowships through waiver of tuition fees. China, Philippines Islamic Republic of Iran, Israel, Italy, Republic of Korea, Philippines, Peru, Turkey, Qatar are each able to provide support to participants through national or institutional sources. Many other providers also support WMO Members through generous support programmes, including MeteoFrance, the Met Office of the UK, UNESCO-IHE in Delft Netherlands, and the Leibniz Universitate of Hannover.

The meeting observed that

The meeting made the following recommendations.....

4. The evolving roles and activities of WMO RTCs

The meeting agreed that the Regional Training Centres, needed significant support by the host countries so as to continue to play various important roles in promoting the delivery of priority areas on education and training in the Region. The RTCs need to:

- (a) align their courses along the lines recommended in WMO publication 1083 “Manual on the Implementation of Education and Training Standards in Meteorology and Hydrology”;
- (b) send their annual major reports, and plans for their course offerings on a regular basis;
- (c) broaden the focus of their activities in the areas of management and application of meteorological and hydrological knowledge to socioeconomic development;
- (d) work more closely with other WMO centers such as the Regional Climate Centres (RCCs) and Regional Instrument Centres (RICs), and with scientific and research institutions in the areas of education and training;
- (e) aim at continuous improvement of their approach to delivery of education and training activities, especially by taking into account relevant information provided by WMO.

4.1 Management and strategic planning,

The meeting noted the ongoing activities on enhancing skills in management, which include preparation and update of guidelines, support to online courses, offer of long term fellowships and cooperation with China in the coordination of the annual study Tour of Permanent Representatives and Senior managers, inter alia, as a way of exchanging views and experiences on management issues. It appreciated the efforts of the Secretariat to develop a similar activity with another member on an experimental basis, while others are being encouraged to consider initiating such activities.

In continuation of the WMO initiatives on management training, one-day discussion sessions and exchange of views on management training within Regional Association sessions have been initiated. It welcomed the decision of WMO Education and Training Office to work with the WMO RTCs on how to incorporate management issues into their training curricula and schedules.

On strategic planning, the meeting noted that the Secretariat developed a handbook on integrated strategic planning to assist NMHSs develop or improve their national strategic plans. It noted that the Handbook is already in use by some countries in RA-I(Africa). The RTCs are encouraged to explore the possibility of introducing some aspects of strategic planning in their curricular.

The meeting made the following observations.....

The meeting made the following recommendations-----

4.2 Exchange of resources and relationships among RTCs, and with other training institutions in their respective regions;

The meeting noted that the mode of operation and level of delivery of the RTCs in the Region depends on the primary goal of their parent institution, level of support they receive from their governing body, other resources available to them, cost of procuring training by potential beneficiaries, catchment population, language consideration, their outreach and to a certain extent their relationship with WMO, such as funds available for co-funding. It welcomed the efforts of the Secretariat to facilitate the exchange programme through the Education and Training Office for experts who are interested in teaching and research as well as in participating in WMO activities outside their home countries.

The meeting observed that

The meeting made the following recommendations.....

4.3 Programme development and relationships with WMO technical programmes and other affiliate institutions

4.4 Feasibility of the WMO Global Campus, legal implications, and impacts on RTCs and the quality of training in meteorology and hydrology together with the related geosciences.

The meeting was informed that the EC Panel of Experts on Education and Training Working Group on Global Campus activities Campus completed a Global Campus Roadmap in April, 2017. This Roadmap outlines the background to the effort, benefits to Members, priority areas for development, and linkages to the WMO Service Delivery and Capacity Development strategies, as well to external organizations and standards. In addition, it provides a status report of the feasibility study priority activities as of April 2017.

4.5 Use of the new “Guide to the Management and Operation of WMO Regional Training Centres and Other Training Institutions” (WMO-No. 1169)

The meeting appreciated the decision of the Secretariat to develop a Guide to the Management and Operation of WMO Regional Training Centres and Other Training Institutions, which would be expected to support the maintenance and development of the RTC network by providing operational guidance, explanations and examples of good practice. The heads of RTCs expressed their commitment to put into use the guide to improve the operation and management of their respective RTCs. They observed that ----. They made the following recommendations.....

4.6 Programme development to support competencies and qualifications (WMO-No.49 Vol I, part V),

The meeting noted the competency frameworks that have been approved so far by WMO Executive Council or Congress, as well as those in development. The meeting welcomed the action of WMO Secretariat to develop a WMO Guide on Competency which would be very helpful to organizations developing, implementing, and/or maintaining competency-based training and assessment programmes against World Meteorological Organization (WMO) competency frameworks.

The meeting noted that WMO has made arrangement with the China Meteorological Administration to host its fellows who are interested in enhancing their forecast competency after graduation. It also noted the various opportunities offered by NOAA to train staff on operational weather and climate forecasting through attachments. It further noted that the contributions made by Canada and Norway to the WMO GFCS enabled the mounting of courses on instrument maintenance and calibration in China, India, Barbados Kenya, Morocco and Fiji.

The meeting made the following observations.....

The meeting made the following recommendations.....

4.7 Resource mobilization and support to fellowships and training,

4.8 National , regional and global training responsibilities/undertakings, including interactions with Regional Associations,

4.9 Maintenance of standards, performance evaluation and external review,

The noted that the Guide to the Implementation of Education and Training Standards in Meteorology and Hydrology is intended to facilitate a common understanding of the basic qualifications required of individuals who are to be recognized either as Meteorologists or as Meteorological Technicians, as defined by the World Meteorological Organization (WMO), while assisting National Meteorological and Hydrological Services (NMHSs) in establishing their respective personnel classification systems and training programmes to satisfactorily meet international standards. It is designed to assist Members in their implementation of the standards contained in the WMO Technical Regulations.

The meeting agreed that the guide provided useful guidance to ensure that standards are maintained. The meeting made the following observations-----

The meeting made the following recommendations-----

4.10 Reporting to WMO and public outreach,

The meeting noted that 30 RTCs/Components, out of 39, had submitted their 2016 annual reports as of 23 March 2017. While this represents a significant proportion of the RTCs, the meeting encouraged all the RTCs to provide regular annual reports on time to inform any necessary actions by the various organs of WMO.

4.11 Challenges facing RTCs in a world faced with rapid evolutions in technology and demands for user-oriented services ,

The meeting recalled that WMO RTCs were established on the basis of the need to fill the gaps in training facilities at regional level, and they have all been working in various ways to meet that objective. With the support of Members and particularly their host governments, RTCs remain important partners of WMO Education and Training programme in the development and implementation of its training activities at national, regional and international levels. As expected, mode of operation and level of delivery of the RTCs in the Region depend on the primary goal of their parent institution, level of support they receive from their governing body, other resources

available to them, cost of procuring training by potential beneficiaries, catchment population, language consideration, their outreach and to a certain extent their relationship with WMO, such as funds available for co-funding. Summaries of the profiles and recent activities of RTCs are attached as Annex I and II to this report.

As part of the ongoing effort to refocus WMO support to and cooperation with the RTCs and enhance regional delivery and network among institutions at regional and global levels, a plan is underway to promote exchange of experts between the RTCs as a way of enhancing cooperation between. Under the proposed plan, WMO is facilitating the exchange programme through the Education and Training Office for experts who are interested in teaching and research as well as in participating in WMO activities outside their home country. While the nominee will be referred to as WMO Expert, the role of WMO will be limited to process of screening, selection and facilitation of a bilateral contractual arrangement between expert and the host institutions. The Secretary-General has invited interested Members to: a) provide information the area of specialization in which an experts are needed; b) indicate duration for which they intend to host the expert.

4.12 Research and development as a means for improving services and further understanding of the global climate system, and

4.13 Future directions.

5- Conclusions, Recommendations and Way forward

The meeting reflected on the following questions in their discussions:

- i. Outcome of SYMET-XIII
- ii. What do RTCs want from WMO and from each other, and what are the appropriate improvements to realize the identified needs?
- iii. What are the challenges facing RTCs and how can they be overcome?
- iv. What are the relevant improvements in the training programmes of RTCs to effectively contribute national and international socio-economic development? What are the necessary mechanisms needed for RTCs to share resources and experiences to improve the quality and relevance of education and training programmes?
- v. How can we broaden cooperation and improve resource mobilization to support improvements in education and training programme?
- vi. Taking into consideration, the rapidly evolving demands for services, advances in science and technology, what do you consider as the relevant future direction in the provision of education and training by RTCs?
- vii. What is the appropriate frequency for RTCs to update WMO Secretariat on their activities? and

- viii. What are the other relevant issues that needed consideration?
It made the following recommendations:

6 Closing

In closing remarks, the PR expressed xxxxx- The D/ETR expressed his satisfaction with the deliberations of the meeting and encouraged the RTCs to be in the fore front in the implementation of the recommendations of the meeting and keep the Secretariat informed of the progress.