Expert Team for Human Resources Development, Education and Training (CDP-ET-HRDET)

1. Introduction

The Expert Team for Human Resources Development, Education and Training (CDP-ET-HRDET) has been created to monitor and advise on the following issues:

- Efforts to increase vocational training and long-term education for developing countries.
- Gaps bridging, competency standards and implementation, WMO Regional Training Centers (RTCs), education and training officers, and implementation of education and training activities, initiatives and opportunities of the WMO Global Campus.
- An overview of education and training policies, qualifications and competencies standards, RTC assessment practices and WMO Global Campus activities.
- Identification of training needs and recommendations on how to strengthen the capacity of educational institutions, as well as recommendations for training activities to close gaps in formal and continuing education.
- Issues of leadership and management.

Due to the termination of the activities of the EU Expert Group on Education and Training in accordance with the new WMO governance structure, it was also proposed to add the following two items to the terms of reference of CDP-ET-HRDET:

- To provide advice to the Executive Council on monitoring, strengthening and improving the WMO Education and Training Programme, including the nomination of suitable training institutions such as WMO Regional Training Centres;
- To provide advice to the Executive Board on how to improve the effectiveness of the fellowship program based on the ongoing monitoring and evaluation of the program.

2. Activities

ET-HRDET started its activities with the Virtual kick-off meeting held October 15th, 2020, where the ET mandate has been clarified and communication through the Moodle Platform has been agreed by the Team members: Dr Anna Timofeeva (facilitator, Russia), Dr David Farrell (Barbados), Dr Winifred Jordaan (South Africa), Prof Peter Odjugo

(Nigeria), Dr Somenath Dutta (India), Mr Zhiqiang Wang (China).

The Team members played an active role in the WMO Global Campus Event "Responding to Challenges Beyond the New Normal" (online, January 20-22, 2021) and have been involved in the organization committee and the discussions at the Fourteenth WMO Education and Training Symposium (SYMET-14) (November 22-25, 2021). The Symposium was attended by 280 registered participants from 61 WMO Members, representing developed, developing and least developed countries, all WMO languages, with a gender ratio of 53% female and 47% male. The theme of the symposium, "Education and Training in a Period of Rapid Change", emphasized the challenges and opportunities in confronting the rapidly progressing technology, service delivery expectations, globalization of the meteorological enterprise, growth in urban environments, and impacts of climate change. Participants actively engaged in the presentations and discussions, and over the four days developed conclusions and recommendations which are included in the symposium statement.

The Team has also been involved in the follow-up Meeting of Directors of Regional Training Centres and Education and Training Collaborators (26 November 2021). ET-HRDET facilitator participated in the First informal meeting between WMO Capacity Development Panel and Hydrological Coordination Panel (02 December 2021, together with the ET-TDs), and disseminated CDP outcomes, in particular, CONECT concept at the Twentieth Meeting of the Project Team on Implementation of Meteorological Services in the Eastern Part of the EUR Region (PT/EAST/20) ICAO (29 - 30 June 2022).

3. Highlights of achievements

- Elaboration of the CONECT concept, the Consortium of WMO Education and Training Collaborating Partners as a formal mechanism to achieve the goals of the WMO Global Campus initiative.
- Organization of SYMET-14; it was the first time the symposium was held exclusively virtually, and the Symposium website is now open to all, offering access to SYMET-14 recorded keynotes, posters presentations and resources exchanged during the event.
- Review and update of BIP-M and BIP-MT.

- RTC external reviews (2 RTC reviews have been conducted by the time of writing the report, with CDP members in the external review panel).
- The Publication of the Leadership & Management materials (A Primer on Public Policy and Management with a Focus on National Meteorological and Hydrological Services (WMO-No. 1289)).

4. Challenges and opportunities

Existing competency frameworks need to be regularly revised and updated as necessary to support the development of new frameworks in areas not yet considered, with support from the Education and Training office, and benefit from the experience and expertise of WMO RTCs in close coordination with RTC representatives;

Strategies to promote the involvement of academic staff and NMHS staff need to be developed at the local and regional levels in research and translation of research into operations and their application to improve operational delivery.

Recommendations on how to promote a systematic contribution of academia need to be made to improve the continuity of research into practice, which should address approaches to promote capacity development and service capabilities in the field of weather, climate, hydrology and the environment at the regional level through the promotion of cooperation and communication. between regional centres, such as Regional Specialized Centres, Regional Climate Centres, Regional Training Centers (RTCs), WMO Integrated Global Observing System (WIGOS) centers and WMO Information System (WIS) centres, etc.;

Outreach and training should be key activities in support of the implementation of the new unified WMO policy for the international exchange of Earth System and Global Basic Observing Network data.

5. Recommendations from the expert team

Based on the achievements of this expert team, the following recommendations are made:

5.1. To note the recommendations made in the "Education and Training in a Period of Rapid Change: Highlights of the Fourteenth WMO Symposium on Education and Training" (WMO-No. 1291)

- 5.2. To encourage Members to further distribute the Statement of SYMET-14 (contained in the WMO-No. 1291) to assist broadening the reach of the recommendations to stakeholders that can support the WMO education and training community to address the changing and increasing education and training requirements.
- 5.3. To support the implementation of the Consortium of WMO Education and Training Collaborating Partners (CONECT), encouraging the engagement of experienced members from education and training stakeholders worldwide.
- 5.4. To encourage the adoption of the updated Basic Instruction Package for Meteorologists and Meteorological Technicians, which is recommended by the Capacity Development Panel (CDP), Services Commission (SERCOM) and Infrastructure Commission (INFCOM).

6. **Activities up until Congress**

The finalization of the BIP review. The document and the related updates on technical regulations are being presented at SERCOM-2 and INFCOM-2 for their recommendation to EC-76 and Congress.

Implementation of CONECT initiative, as discussed at CDP-5, such as stakeholder invitation mechanism and management group formation.

Further reviews of RTCs (Israel & Indonesia); submission of external review outcomes to EC-76 for RTC reviews already completed for reconfirmation of their status.

Publication of the revision of two WMO documents: Guide to the Management and Operation of WMO Regional Training Centres and Other Institutions (WMO-No. 1169), and Guidelines for Trainers in Meteorological, Hydrological and Climate Services (WMO-No. 1114).